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THE MAGNETIC ELEMENTS AT THE CAPE OF GOOD HOPE FROM 1605 TO 1900.

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§ 1. The first recorded observation of the declination at the Cape was made in 1605, the first measurement of intensity about 1841, the first observation of inclination or dip in 1751. Other observations have been made at irregular intervals till 1840. In 1841 a detachment of R.A. began observations at the Royal Observatory, Capetown, and carried them on till 1846. This observational work was continued at the permanent magnetical observatory established in connection with the Royal Observatory of the Cape of Good Hope; the magnetic work seems to have been discontinued after 1869.

In recent years observations have been taken by the magnetic observers attached to various expeditions. In addition to these, yearly observations are taken at the Royal Observatory, Capetown, by Messrs. Beattie and Morrison with a set of field-instruments (Kew pattern) obtained by Sir David Gill in 1894.

§ 2. *Inclination.*

The following is a list of the determinations of inclination at the Cape :—

Date.	Observers.	Dip.	Authorities.	Remarks.
1751.	La Caille	−43° 0′	From Sabine's 'Magnetical and Meteorological Observations at the Cape of Good Hope,' vol. i. Magnetism.	
1770.	Ekeberg	−44 25		
1774.	Bayley	−45 37		
1774.	Ekeberg	−44 29		
1775.	Wales	−45 19		
1775.	Abercrombie	−46 21		
1776.	Bayley	−46 31		
1780.	Bayley	−46 46		
1791.	Vancouver	−48 30		
1792.	Dentrecasteaux ..	−47 25		
1818.	Freycinet	−50 47		
1836.	Fitzroy	−52 35		
1839.	Du Petit Thouars..	−53 06		
1840.	Ross	−53 08		
1841.	R.A. Detachment..	−53 09		The results for 1841 to 1846 inclusive are the mean of observations taken as a rule twice weekly, four hours before and four hours after noon.
1842.	R.A. ,, ..	−53 12		
1843.	R.A. ,, ..	−53 19		
1844.	R.A. ,, ..	−53 36		
1845.	R.A. ,, ..	−53 31		
1846.	R.A. ,, ..	−53 33		
1847.	.....	−53 41	Admiralty hydrographic records.	
1848.	.....	−53 47		
1849.	.....	−53 52		
1850.	.....	−53 58		
Feb. 6, 1851.	Sir Thomas Maclear	−54 02	Sabine.	
1852.	.....	−54 04	Dip-book Royal Observy. C. of G. Hope.	The results for 1852–1857 inclusive are the mean of observations taken twice weekly, morning and afternoon.
1853.	.....	−54 09		
1854.	.....	−54 19·6		
1855.	.....	−54 24·5		
1856.	.....	−54 23·9		
Jan. 1857.	.....	−54 23·0		
Oct. 1857.	.....	−54 36·4	Reise der Novara.	
March 1858.	.....	−54 29·3	Dip-book R. O., C. of G. Hope.	
Aug. 1871.	Stone	−55 45·4		
Sept. 1871.	Stone	−55 34·9		
Nov. 1873.	.....	−55 56·3	*Challenger* Report, Narrative ii.	
Sept. 30, 1874.	.....	−56 6·0	Voyage of the *Gazelle*	
Jan. 31, 1890.	Preston	−57 15·2	U.S. Coast and Geodetic Survey, Bull. 23.	
Dec. 29, 1894.	Combe	−57 50·0	R. O. Records, C. of G. Hope.	With Dip Circle 9, by Dover.
Jan. 11, 1895.	Finlay	−57 52·0		
Oct. 23, 1897.	Finlay	−58 07·0		
Oct. 2, 1899.	Beattie & Morrison	−58 31·0	R. O. Records, C. of G. Hope.	
Aug. 19, 1900.	Beattie & Morrison	−58 38·9		
Dec. 1900.	Beattie & Morrison	−58 39·7		
Dec. 1900.	Beattie & Morrison	−58 41·1	.....	With Dip Circle 142, by Dover.

From the above results the secular variation of inclination is as follows :—

Period.	Secular Variation.
1751 to 1840	6·94′ annual increase of south inclination.
1841 ,, 1846	5·45 ,, ,, ,,
1843 ,, 1854	5·10 ,, ,, ,,
1854 ,, 1873	2·20 ,, ,, ,,
1873 ,, 1890	4·90 ,, ,, ,,
1890 ,, 1900	7·80 ,, ,, ,,

§ 3. *Declination.*

The following list contains all the records of declination determination at the Cape of Good Hope which have come under our observation.

Date.	Observers.	Declination.	Authorities.	Remarks.
1605.	Davis.....	0° 30′ E. of N.		
1609.	Keeling.....	0 12 W. of N.		
1614.	Pring.....	1 30 ,,		
1614.	Daunton	1 45 ,,		
1622.	.....	2 0 ,,		
1675.	.....	8 0 ,,		
1675.	Leydeker	8 28 ,,		
1691.	.....	11 0 ,,		
1721.	Mathews	16 25 ,,		
1754.	Mathews	16 23 ,,		
1751.	La Caille	19 15 ,,		
1753.	La Caille	19 00 ,,		
1768.	Wallis	19 30 ,,		
1768.	Carteret	19 30 ,,		
1770.	Ekeberg	19 10 ,,	Taken from Sabine's 'Magnetical and Meteorological Observations at the Cape of Good Hope,' vol. i. Magnetism.	
1771.	Cook	20 30 ,,		
1772.	Wales	20 26 ,,		
1774.	Ekeberg	21 39 ,,		
1774.	Bayley	21 36 ,,		
1775.	Wales	21 14 ,,		
1780.	Cook	22 16 ,,		
1783.	Lodberg	22 23 ,,		
1788.	Bligh.....	24 4 ,,		
1791.	Vancouver	25 40 ,,		
1792.	Dentrecasteaux ..	24 31 ,,		
1818.	Freycinet	26 31 ,,		
1836.	Fitzroy	28 30 ,,		
1839.	Du Petit-Thouars	29 9 ,,		
1841.	R.A. Detachment..	29 0·2 ,,		From April, 1841, to July, 1846, inclusive the declination was observed hourly. The declination given for each year is the mean of all the observations for that year. From Sept., 1846, to Aug., 1850, the declination was observed five times daily. The declination given for the year is the mean of all the observations for that year.
1842.	R.A. ,, ..	29 6·0 ,,		
1843.	R.A. ,, ..	29 5·0 ,,		
1844.	R.A. ,, ..	29 6·2 ,,		
1845.	R.A. ,, ..	29 7·4 ,,		
1846.	R.A. ,, ..	29 9·2 ,,		
1847.	.....	29 12·4 ,,		
1848.	.....	29 14·0 ,,		
1849.	.....	29 16·4 ,,		
1850.	.....	29 18·8 ,,		
1851.	.....	29 20·9 ,,	R. Obs. C. of G. Hope Magnetic Records.	From Sept., 1850, to Mar., 1852, the declination was observed five times daily.
1852.	.....	29 22·9 ,,		
Oct. 11, 1857.	.....	29 34·4 ,,	Reise der 'Novara.'	
1860.	.....	29 41·8 ,,		
1861.	.....	29 44·8 ,,		
1862.	.....	29 50·3 ,,		
1863.	.....	29 52·1 ,,		
1864.	.....	29 53·9 ,,	Magnetic Records, R. Obs. C. of G. Hope.	From October, 1860, to January, 1869, the declination was observed twice daily.
1865.	.....	30 0·1 ,,		
1866.	.....	30 2·0 ,,		
1867.	.....	30 1·7 ,,		
1868.	.....	30 1·9 ,,		
Jan. 1869.	.....	30 1·5 ,,		
Nov. 1873.	.....	30 4·0 ,,	*Challenger* Reports, Narrative, vol. ii.	
Jan. 1890.	Preston	29 36·0 ,,	U.S. Coast and Geodetic Survey, Bull. 23.	
Jan. 1895.	Finlay	29 18·0 ,,	Magnetic Records, R. Obs. C. of G. Hope.	
Nov. 1897.	Finlay	29 2·0 ,,		
Dec. 1900.	Beattie & Morrison	28 53·0 ,,		

From the above results the secular variation of declination is as follows :—

Period.	Secular Variation.
1605 to 1839	7′·56 increase of westerly declination.
1841 ,, 1850	1·30 ,, ,, ,,
1843 ,, 1866	2·30 ,, ,, ,,
1866 ,, 1869	Very nearly constant.
1870 ,, 1890	2·80 decrease of westerly declination.
1890 ,, 1900	3·91 ,, ,, ,,

§ 4. The observations for intensity are fewer. The first recorded trustworthy observation was made in 1843. So far as is known to us, the results of all observations made since that date are contained in the following list. The results are given in c.g.s. units.

Date.	Observer.	Horizontal Intensity. c.g.s.units.	Total Intensity. c.g.s. units.	Authorities.
1843.	R.A. Detachment..	·2089	·3498	Sabine, 'Magnetical and Meteorological Observations at Cape of Good Hope,' vol. i.
1844.	,, ,, ..	·2069	·3470	
1845.	,, ,, ..	·2082	·3495	
1846.	Smalley.....	·2080		
1847.	,, ...	·2077		
1848.	,, ...	·2072		
1850.	,, ...	·2066		
1852.	Maclear.....	·2059	·3506	Magnetic Records, R. Obs. Cape of Good Hope.
1853.	,, ...	·2056	·3511	
1854.	,, ...	·2050	·3516	
1855.	,, ...	·2048	·3517	
1856.	,, ...	·2044	·3511	
1857.	,, ...	·2041	·3507	
Sept. 1857.	.....	·2056	·3684	Reise der Novara.
Nov. 1873.	.....	·1989	·3551	*Challenger* Report, Narrative, vol. ii.
Jan. 1890.	Preston	·1916	·3542	U.S. Coast and Geodetic Survey, Bull. 23.
Jan. 1895.	Finlay	·1900	·3572	Magnetic Records, R. Obs. Cape of Good Hope.
Aug. 1897.	Finlay	·18835	·3566	
Jan. 1901.	Beattie & Morrison	·1851	·3559	

Secular Variation.

	Horizontal Intensity. c.g.s.units.	Total Intensity. c.g.s. units.
1843 to 1855	·00035 annual decrease.	·00016 annual increase.
1855 ,, 1901	·00043 ,, ,,	·00009 ,, ,,
1890–1 ,, 1901	·00059 ,, ,,	?

APPENDIX I.

The following results of observations of declination were carried out at the Magnetic Observatory, at one time established at the Royal Observatory, Cape Town. The observations for 1850–51–52 were a continuation of those recorded in 'Sabine's Magnetical and Meteorological Observations, Cape of Good Hope,' vol. i. The declination

was observed five times daily, viz., at 1h. 34m. p.m., 5h. 34m. p.m., 9h. 34m. p.m., 5h. 34m. a.m., 9h. 34m. a.m., Cape time.

The monthly means given on page 1*b*, are the average of all the values obtained during that month.

The declination results for the period October, 1860, to January, 1869, were observed twice daily—Sundays and public holidays excepted—at 10h. 34m. a.m., and 3h. 34m. p.m., Cape time.

The results given under the headings 10h. 34m. a.m., and 3h. 34m. p.m. are the means of the observations made at these hours for the periods given. The results of these years are of considerable interest, as it was at this time that the magnetic declination for a number of years was practically steady.

Declination.

Month.	Mean, 1850.	Declination, 1851.	1852.
Jan.		29° 19′·3 W. of N.	29° 22′·2 W. of N.
Feb.		29 20·6 ,,	29 23·4 ,,
March		29 20·7 ,,	29 23·2 (first ten days only)
April		29 20·7 ,,	
May		29 20·7 ,,	
June		29 20·6 ,,	
July		29 20·9 ,,	
Aug.		29 21·0 ,,	
Sept.	29° 20·0′ W. of N.	29 22·4 ,,	
Oct.	29 19·3 ,,	29 22·1 ,,	
Nov.	29 19·1 ,,	29 21·6 ,,	
Dec.	29 18·8 ,,	29 19·9 ,,	

Declination Results, 1860–1869.

	Date.	10h. 34m. a.m.	3h. 34m. p.m.	Mean.	Yearly Mean.
1860.	Oct. 8–Oct. 17	29° 45′·7	29° 37′·9	29° 41′·8 W. of N.	29° 41′·8 W. of N.
	Oct. 18–Oct. 27.	29 46·1	29 37·1	29 41·7 ,,	
	Oct. 28–Nov. 6.	29 49·0	29 38·3	29 43·7 ,,	
	Nov. 7–Nov. 16.	29 45·4	29 37·5	29 41·5 ,,	
	Nov. 17–Nov. 26.	29 45·4	29 37·0	29 41·2 ,,	
	Nov. 27–Dec. 6.	29 45·6	29 37·5	29 41·6 ,,	
	Dec. 7–Dec. 16.	29 45·2	29 38·1	29 41·7 ,,	
	Dec. 17–Dec. 26.	29 44·1	29 37·6	29 40·9 ,,	
1861.	Dec. 27–Jan. 5.	29 47·1	29 37·4	29 42·3 ,,	29° 44′·8 W. of N.
	Jan. 6–Jan. 15.	29 46·9	29 38·5	29 42·7 ,,	
	Jan. 16–Jan. 25.	29 46·6	29 39·1	29 42·9 ,,	
	Jan. 26–Feb. 4.	29 47·8	29 41·6	29 44·7 ,,	
	Feb. 5–Feb. 14.	29 48·8	29 39·5	22 44·2 ,,	
	Feb. 15–Feb. 24.	29 48·9	29 42·1	29 45·5 ,,	
	Feb. 25–Mar. 6.	29 50·1	29 40·1	29 45·1 ,,	
	Mar. 7–Mar. 16.	29 52·8	29 40·9	29 46·9 ,,	
	Mar. 17–Mar. 26.	29 50·3	29 40·1	29 45·2 ,,	
	Mar. 27–April 5.	29 52·1	29 39·8	29 46·0 ,,	
	April 6–April 15.	29 50·1	29 42·1	29 46·1 ,,	
	April 16–April 25.	29 50·2	29 42·2	29 46·2 ,,	
	April 26–May 5.	29 49·9	29 41·1	29 45·5 ,,	
	May 6–May 15.	29 47·1	29 41·6	29 44·4 ,,	
	May 16–May 25.	29 46·7	29 42·5	29 44·6 ,,	

Date.	10h. 34m. a.m.	3h. 34m. p.m.	Mean.	Yearly Mean.
1861. May 26–June 4.	29° 44′·9	29° 42′·8	29° 43′·9 W. of N.	29° 44′·8 W. of N.
June 5–June 14.	29 44·5	29 41·5	29 43·0	,,
June 15–June 24.	29 44·3	29 40·6	29 42·5	,,
June 25–July 4.	29 43·4	29 40·0	29 41·7	,,
July 5–July 14.	29 45·2	29 41·1	29 43·2	,,
July 15–July 24.	29 44·4	29 42·8	29 43·6	,,
July 25–Aug. 3.	29 45·1	29 41·4	29 43·3	,,
Aug. 4–Aug. 13.	29 44·6	29 41·4	29 43·0	,,
Aug. 14–Aug. 23.	29 45·3	29 42·0	29 43·7	,,
Aug. 24–Sept. 2.	22 45·8	29 42·1	29 44·0	,,
Sept. 3–Sept. 12.	29 46·7	29 42·2	29 44·5	,,
Sept. 13–Sept. 22.	29 48·6	29 42·1	29 45·4	,,
Sept. 23–Oct. 2.	29 49·0	29 40·2	29 44·6	,,
Oct. 3–Oct. 12.	29 47·8	29 41·1	29 44·5	,,
Oct. 13–Oct. 22.	29 49·2	29 41·7	29 45·5	,,
Oct. 23–Nov. 1.	29 49·6	29 41·9	29 45·8	,,
Nov. 2–Nov. 11.	29 50·1	29 43·0	29 46·6	,,
Nov. 12–Nov. 21.	29 48·1	29 43·3	29 45·7	,,
Nov. 22–Dec. 1.	29 49·6	29 44·0	29 46·8	,,
Dec. 2–Dec. 11.	29 50·4	29 44·2	29 47·3	,,
Dec. 12–Dec. 21.	29 50·9	29 44·0	29 47·5	,,
Dec. 22–Dec. 31.	29 50·2	29 45·0	29 47·6	,,
1862. Jan. 1–Jan. 10.	29 52·8	29 44·3	29 48·6	,, 29° 50′·3 W. of N.
Jan. 11–Jan. 20.	29 52·4	29 46·4	29 49·4	,,
Jan. 21–Jan. 30.	29 50·9	29 47·4	29 49·2	,,
Jan. 31–Feb. 9.	29 52·6	29 44·3	29 48·5	,,
Feb. 10–Feb. 19.	29 54·6	29 45·7	29 50·2	,,
Feb. 20–Feb. 29.	29 55·6	29 44·8	29 50·2	,,
Mar. 2–Mar. 11.	29 57·3	29 45·8	29 51·6	,,
Mar. 12–Mar. 21.	29 55·5	29 46·0	29 50·8	,,
Mar. 22–Mar. 31.	29 55·4	29 45·7	29 50·6	,,
April 1–April 10.	29 54·8	29 46·8	29 50·8	,,
April 11–April 20.	29 55·0	29 47·3	29 51·2	,,
April 21–April 30.	29 53·7	29 48·0	29 50·9	,,
May 1–May 10.	29 53·5	29 47·2	29 50·4	,,
May 11–May 20.	29 52·1	29 46·7	29 49·4	,,
May 21–May 30.	29 52·4	29 47·7	29 50·1	,,
June 1–June 9.	29 52·9	29 48·8	29 50·9	,,
June 10–June 19.	29 49·9	29 46·8	29 48·3	,,
June 20–June 29.	29 49·6	29 45·5	59 47·6	,,
July 1–July 9.	29 49·9	29 46·7	29 48·3	,,
July 30–Aug. 8.	29 53·8	29 48·5	29 51·2	,,
Aug. 9–Aug. 18.	29 53·2	29 48·0	29 50·6	,,
Aug. 19–Aug. 28.	29 54·0	29 48·4	29 51·2	,,
Aug. 29–Sept. 7.	29 53·1	29 49·2	29 51·2	,,
Sept. 8–Sept. 17.	29 53·9	29 47·7	29 50·8	,,
Sept. 18–Sept. 27.	29 53·5	29 47·1	29 50·3	,,
Sept. 28–Oct. 7.	29 55·1	29 47·7	29 51·4	,,
Oct. 8–Oct. 17.	29 53·2	29 47·5	29 50·4	,,
Oct. 18–Oct. 27.	29 52·5	26 47·4	29 50·0	,,
Oct. 28–Nov. 6.	29 52·4	29 47·0	29 49·7	,,
Nov. 7–Nov. 16.	29 53·9	29 46·6	29 50·2	,,
Nov. 17–Nov. 26.	29 54·7	29 46·7	29 50·7	,,
Nov. 27–Dec. 6.	29 51·1	29 49·1	29 51·6	,,
Dec. 7–Dec. 16.	29 53·9	29 49·4	29 51·6	,,
Dec. 17–Dec. 26.	29 53·9	29 50·3	29 52·1	,,
1863. Dec. 27–Jan. 5.	29 54.6	29 49·4	29 52·0	,, 29° 52′·1 W. of N.
Jan. 6–Jan. 15.	29 56·0	29 48·7	29 52·3	,,
Jan. 16–Jan. 25.	29 54·4	29 49·8	29 52·1	,,
Jan. 26–Feb. 4.	29 54·2	29 50·6	29 52·4	,,
Feb. 5–Feb. 14.	29 56·3	29 49·2	29 52·8	,,
Feb. 15–Feb. 24.	29 57·1	29 49·3	29 53·2	,,
Feb. 25–Mar. 6.	29 58·0	29 51·0	29 54·5	,,

Date.	10h. 34m. a.m.	3h. 34m. p.m.	Mean.	Yearly Mean.
1863. Mar. 7–Mar. 16.	29° 59′·1	29° 48′·5	29° 53′·8 W. of N.	29° 52′·1 W. of N.
Mar. 17–Mar. 26.	29 58·4	29 49·7	29 54·1	,,
Mar. 27–April 5.	29 57·5	29 49·2	29 53·4	,,
April 6–April 15.	29 55·1	29 48·5	29 51·8	,,
April 16–April 25.	29 56·4	29 50·3	29 53·4	,,
April 26–May 5.	29 53·9	29 50·1	29 52·0	,,
May 6–May 15.	29 54·4	29 49·4	29 51·9	,,
May 16–May 25.	29 53·0	29 49·7	29 51·4	,,
May 26–June 4.	29 52·9	29 48·7	29 50·8	,,
June 5–June 14.	29 50·8	29 49·3	29 50·1	,,
June 15–June 24.	29 51·3	29 49·4	29 50·4	,,
June 25–July 4.	29 51·3	29 48·8	29 50·1	,,
July 5–July 14.	29 51·0	29 48·6	29 49·8	,,
July 15–July 24.	29 50·1	29 49·4	29 49·8	,,
July 25–Aug. 4.	29 52·1	29 49·4	29 50·8	,,
Aug. 5–Aug. 14.	29 52·3	29 49·3	29 50·8	,,
Aug. 15–Aug. 24.	29 51·9	29 49·8	29 50·9	,,
Aug. 25–Sept. 3.	29 53·7	29 50·2	29 55·0	,,
Sept. 4–Sept. 13.	29 54·0	29 50·7	29 52·4	,,
Sept. 14–Sept. 23.	29 54·6	29 50·1	29 52·4	,,
Sept. 24–Oct. 3.	29 55·0	29 49·7	29 52·4	,,
Oct. 4–Oct. 13.	29 54·4	29 48·9	29 51·7	,,
Oct. 14–Oct. 23.	29 54·8	29 48·2	29 51·5	,,
Oct. 24–Nov. 2.	29 54·7	29 48·0	29 51·4	,,
Nov. 3–Nov. 12.	29 53·7	29 49·6	29 51·7	,,
Nov. 13–Nov. 22.	29 56·2	29 50·1	29 53·2	,,
Nov. 23–Dec. 2.	29 58·0	29 50·2	29 54·1	,,
Dec. 3–Dec. 12.	29 56·9	29 50·5	29 53·7	,,
Dec. 13–Dec. 22.	29 56·0	29 52·1	29 54·1	,,
1864. Dec 23–Jan. 1.	29 55·3	29 52·1	29 53·7	,, 29° 53′·9 W. of N.
Jan. 2–Jan. 11.	29 56·8	29 53·8	29 55·3	,,
Jan. 12–Jan. 21.	29 58·2	29 53·4	29 55·8	,,
Jan. 22–Jan. 31.	29 57·3	29 51·1	29 54·2	,,
Feb. 1–Feb. 10.	29 56·6	29 53·9	29 55·2	,,
Feb. 11–Feb. 20.	29 57·8	29 52·9	29 55·4	,,
Feb. 21–Mar. 1.	30 1·6	29 51·7	29 56·7	,,
Mar. 2–Mar. 11.	30 2·5	29 54·0	29 58·3	,,
Mar. 12–Mar. 21.	30 1·7	29 53·1	29 57·4	,,
Mar. 22–Mar. 31.	30 2·4	29 55·2	29 58·8	,,
April 1–April 10.	30 0·5	29 55·4	29 58·0	,,
April 11–April 20.	30 0·3	29 54·6	29 57·5	,,
April 21–April 30.	30 0·5	29 56·0	29 58·3	,,
May 1–May 10.	29 59·1	29 55·4	29 57·3	,,
May 11–May 20.	29 57·2	29 54·8	29 56·0	,,
May 21–May 30.	29 57·3	29 56·3	29 56·8	,,
May 31–June 9.	29 56·0	29 55·5	29 55·8	,,
June 10–June 19.	29 56·8	29 55·5	29 56·2	,,
June 20–June 29.	29 56·7	29 55·0	29 55·9	,,
June 30–July 9.	29 55·7	29 53·2	29 54·5	,,
July 10–July 20.	29 57·2	29 53·7	29 55·5	,,
July 20–July 29.	29 57·0	29 54·8	29 55·9	,,
July 30–Aug. 8.	29 57·7	29 54·7	29 55·9	,,
Aug. 9–Aug. 18.	29 58·2	29 54·7	29 56·5	,,
Aug. 19–Aug. 28.	29 56·9	29 55·0	29 56·0	,,
Aug. 29–Sept. 7.	29 58·0	29 55·1	29 56·6	,,
Sept. 8–Sept. 17.	29 58·6	29 54·6	29 56.6	,,
Sept. 18–Sept. 27.	29 59·2	29 55·4	29 57·3	,,
Sept. 28–Oct. 7.	29 59·9	29 53·4	29 56·7	,,
Oct. 8–Oct. 17.	30 1·1	29 54·7	29 57·9	,,
Oct. 18–Oct. 27.	30 0·8	29 55·0	29 57·9	,,
Oct. 28–Nov. 6.	30 0·7	29 54·9	29 57·8	,,
Nov. 7–Nov. 16.	30 1·2	29 54·5	29 57·9	,,
Nov. 17–Nov. 26.	29 58·6	29 54·9	29 56·8	,,

Date.	10h. 34m. a.m.	3h. 34m. p.m.	Mean.	Yearly Mean.
1864. Nov. 27–Dec. 6.	29° 59′·4	29° 54′·6	29° 57′·0 W. of N.	29° 53′·9 W. of N.
Dec. 7–Dec. 16.	29 59·3	29 55·7	29 57·5 ,,	
Dec. 17–Dec. 26.	29 59·7	29 54·2	29 57·0 ,,	
1865. Dec. 27–Jan. 5.	30 0·2	29 53·4	29 56·8 ,,	30° 0′·1 W. of N.
Jan. 6–Jan. 15.	30 2·3	29 54·1	29 58·2 ,,	
Jan. 16–Jan. 25.	30 3·8	29 55·1	29 59·5 ,,	
Jan. 26–Feb. 4.	30 4·4	29 54·5	29 59·5 ,,	
Feb. 5–Feb. 14.	30 5·9	29 54·5	29 55·2 ,,	
Feb. 15–Feb. 24.	30 4·3	29 57·6	30 1·0 ,,	
Feb. 25–Mar. 6.	30 5·4	29 55·9	30 0·7 ,,	
Mar. 7–Mar. 16.	30 4·6	29 57 0	30 0·8 ,,	
Mar. 17–Mar. 26.	30 3·6	29 58·1	30 0·9 ,,	
Mar. 27–April 5.	30 6·1	29 57·5	30 1·8 ,,	
April 6–April 15.	30 4·0	29 58·9	30 1·5 ,,	
April 16–April 25.	30 2·2	29 59·1	30 0·7 ,,	
April 26–May 5.	30 2·9	29 58·2	30 0·6 ,,	
May 6–May 15.	30 1·1	29 58·9	30 0·0 ,,	
May 16–May 25.	30 0·4	29 55·9	29 58·2 ,,	
May 26–June 4.	30 0·7	29 57·6	29 59·2 ,,	
June 5–June 14.	30 0·9	29 59·1	30 0·0 ,,	
June 15–June 24.	30 0·0	29 58·5	29 59·3 ,,	
June 25–July 4.	30 0·7	29 58·4	29 59·6 ,,	
July 5–July 14.	29 59·3	29 58·0	29 58·7 ,,	
July 15–July 24.	29 58·9	29 58·2	29 58·6 ,,	
July 25–Aug. 3.	30 1·1	29 57·6	29 59·4 ,,	
Aug. 4–Aug. 13.	30 0·4	30 0·2	30 0·3 ,,	
Aug. 14–Aug. 23.	30 0·9	29 58·4	29 59·7 ,,	
Aug. 24–Sept. 2.	30 2·7	29 59·7	30 1·2 ,,	
Sept. 3–Sept. 12.	30 2·2	29 59·3	30 0·8 ,,	
Sept. 13–Sept. 22.	30 2·4	29 59·1	30 0·8 ,,	
Sept. 23–Oct. 2.	30 2·4	29 58·5	30 0·5 ,,	
Oct. 3–Oct. 12.	30 4·6	29 57·6	30 1·1 ,,	
Oct. 13–Oct. 22.	30 4·4	29 57·5	30 1·0 ,,	
Oct. 23–Nov. 1.	30 2·6	29 56·5	29 59·6 ,,	
Nov. 2–Nov. 11.	30 3·5	29 58·6	30 1·1 ,,	
Nov. 12–Nov. 21.	30 3·0	29 59·1	30 1·1 ,,	
Nov. 22–Dec. 1.	30 3·3	29 59·4	30 1·4 ,,	
Dec. 2–Dec. 11.	30 3·1	29 59·0	30 1·1 ,,	
Dec. 12–Dec. 21.	30 2·8	29 58·7	30 0·8 ,,	
Dec. 22–Dec. 31.	30 2·4	30 0·3	30 1·4 ,,	
1866. Jan. 1–Jan. 10.	30 3·5	30 0·5	30 2·0 ,,	30° 2′·0 W. of N.
Jan. 11–Jan. 20.	30 5·1	30 1·4	30 3·3 ,,	
Jan. 21–Jan. 30.	30 4·3	30 2·0	30 3·2 ,,	
Jan. 31–Feb. 9.	30 4·7	30 0·9	30 2·8 ,,	
Feb. 10–Feb. 19.	30 3·9	29 59·3	30 1·6 ,,	
Feb. 20–Mar. 1.	30 6·6	30 0·3	30 3·5 ,,	
Mar. 2–Mar. 11.	30 7·8	29 59·4	30 3·6 ,,	
Mar. 12–Mar. 21.	30 10·0	30 0·1	30 5·1 ,,	
Mar. 22–Mar. 31.	30 6·1	30 0·4	30 3·3 ,,	
April 1–April 10.	30 6·8	30 2·7	30 4·8 ,,	
April 11–April 20.	30 6·1	37 1·3	30 3·7 ,,	
April 21–April 30.	30 5·5	30 0·5	30 3·0 ,,	
May 1–May 10.	30 4·6	30 0·6	30 2·6 ,,	
May 11–May 20.	30 4·0	30 0·5	30 2·3 ,,	
May 21–May 30.	30 3·5	30 0·6	30 2·1 ,,	
May 31–June 9.	30 0·1	29 59·4	29 59·8 ,,	
July 20–July 29.	30 3·0	30 0·9	30 2·0 ,,	
July 30–Aug. 8.	30 3·4	30 0·3	30 1·9 ,,	
Aug. 9–Aug. 18.	30 2·7	30 59·8	30 1·3 ,,	
Aug. 19–Aug. 28.	30 1·8	30 0.2	30 1·0 ,,	
Aug. 29–Sept. 7.	30 0·2	29 58·2	29 59·2 ,,	
Sept. 8–Sept. 17.	30 0·3	29 58·7	29 59·5 ,,	
Sept. 18–Sept. 27.	30 3·6	29 59·2	30 1·4 ,,	

Date.	10h. 24m. a.m.	3h. 34m. p.m.	Mean.	Yearly Mean.
1866. Sept. 28–Oct. 7.	30° 2′·7	29° 58′·4	30° 0′·6 W. of N.	30° 2′·0 W. of N.
Oct. 8–Oct. 17.	30 3·0	29 57·5	30 0·3 ,,	
Oct. 18–Oct. 27.	30 3·2	29 58·1	30 0·7 ,,	
Oct. 28–Nov. 6.	30 3·5	29 58·1	30 0·8 ,,	
Nov. 7–Nov. 16.	30 2·3	29 59·1	30 0·7 ,,	
Nov. 17–Nov. 26.	30 4·0	29 59·9	30 2·0 ,,	
Nov. 27–Dec. 6.	30 3·7	30 0·0	30 1·9 ,,	
Dec. 7–Dec. 16.	30 5·4	29 59·1	30 2·3 ,,	
Dec. 17–Dec. 26.	30 3·5	30 0·2	30 1·9 ,,	
1867. Dec. 27–Jan. 5.	30 4·6	30 0·0	30 2·3 ,,	30° 1′·7 W. of N.
Jan. 6–Jan. 15.	30 5·6	30 0·3	30 3·0 ,,	
Jan. 16–Jan. 25.	30 5·1	30 0·5	30 2·8 ,,	
Jan. 26–Feb. 4.	30 3·5	30 0·5	30 1·9 ,,	
Feb. 5–Feb. 14.	30 5·0	30 0·6	30 2·8 ,,	
Feb. 15–Feb. 24.	30 4·8	30 1·3	30 3·1 ,,	
Feb. 25–Mar. 6.	30 6·1	30 0·0	30 3·1 ,,	
Mar. 7–Mar. 16.	30 7·3	30 1·6	30 4·5 ,,	
Mar. 17–Mar. 26.	30 5·6	29 59·1	30 2·4 ,,	
Mar. 27–April 5.	30 5·5	30 0·0	30 2·8 ,,	
April 6–April 15.	30 5·8	30 1·4	30 3·6 ,,	
April 16–April 25.	30 4·2	30 1·0	30 2·6 ,,	
April 26–May 5.	30 4·2	30 1·5	30 2·9 ,,	
May 6–May 15.	30 3·4	30 0·5	30 2·0 ,,	
May 16–May 25.	30 3·0	30 0·1	30 1·6 ,,	
May 26–June 4.	30 3·8	30 2·2	30 3·0 ,,	
June 5–June 14.	30 2·0	30 0·2	30 1·1 ,,	
June 15–June 24.	30 2·2	30 0·6	30 1·4 ,,	
June 25–July 4.	30 0·6	30 0·0	30 0·3 ,,	
July 5–July 14.	30 0·3	29 59·0	29 59·7 ,,	
July 15–July 24.	30 1·3	29 58·8	30 0·1 ,,	
July 25–Aug. 3.	30 0·5	29 58·3	29 59·4 ,,	
Aug. 4–Aug. 13.	29 59·9	29 58·6	29 59·3 ,,	
Aug. 14–Aug. 23.	30 1·6	29 59·4	30 0·5 ,,	
Aug. 24–Sept. 2.	30 1·6	29 59·8	30 0·7 ,,	
Sept. 3–Sept. 12.	30 2·9	29 52·8	30 1·4 ,,	
Sept. 13–Sept. 22.	30 4·7	29 59·8	30 2·2 ,,	
Sept. 23–Oct. 2.	30 3·7	29 59·0	30 1·4 ,,	
Oct. 3–Oct. 12.	30 3·2	29 58·5	30 0·9 ,,	
Oct. 13–Oct. 22.	30 4·6	29 57·0	30 0·8 ,,	
Oct. 23–Nov. 1.	30 3·4	29 58·0	30 0·7 ,,	
Nov. 2–Nov. 11.	30 2·5	29 57·9	30 0·2 ,,	
Nov. 12–Nov. 21.	30 3·5	29 57·8	30 0·7 ,,	
Nov. 22–Dec. 1.	30 3·7	29 59·1	30 1·4 ,,	
Dec. 2–Dec. 11.	30 2·8	29 59·3	30 1·1 ,,	
Dec. 12–Dec. 21.	30 4·2	29 58·3	30 1·3 ,,	
Dec. 22–Dec. 31.	30 4·7	29 58·3	30 1·5 ,,	
1868. Jan. 1–Jan. 10.	30 4·2	29 59·4	30 1·8 ,,	30° 1′·9 W. of N.
Jan. 11–Jan. 20.	30 3·4	29 58·0	30 0·7 ,,	
Jan. 21–Jan. 30.	30 3·8	30 0·1	30 2·0 ,,	
Jan. 31–Feb. 9.	30 3·5	29 59·9	30 1·7 ,,	
Feb. 10–Feb. 19.	30 3·8	29 58·6	30 1·2 ,,	
Feb. 20–Feb. 29.	30 5·7	30 0·7	30 3·2 ,,	
Mar. 1–Mar. 10.	30 7·2	30 0·5	30 3·9 ,,	
Mar. 11–Mar. 20.	30 8·0	30 0·1	30 4·1 ,,	
Mar. 21–Mar. 30.	30 7·1	30 1·6	30 4·4 ,,	
Mar. 31–April 9.	30 7·8	30 1·0	30 4·4 ,,	
April 10–April 19.	30 5·3	30 1·9	30 3·6 ,,	
April 20–April 29.	30 6·2	30 2·9	30 4·6 ,,	
April 30–May 9.	30 4·7	30 1·2	30 3·0 ,,	
May 10–May 19.	30 4·5	30 1·6	30 3·1 ,,	
May 30–June 8.	30 1·9	29 59·3	30 0·6 ,,	
June 9–June 18.	30 1·2	30 0·2	30 0·7 ,,	
June 19–June 28.	30 0·8	29 58·5	29 59·7 ,,	

Date.	10h. 34m. a.m.	3h. 34m. p.m.	Mean.	Yearly Mean.
1868. June 29–July 8.	30° 1′·1	29° 58′·8	30° 0′·0	W. of N. 30° 1′·9 W. of N.
July 9–July 18.	30 1·1	30 1·1	30 1·1	,,
July 19–July 28.	30 3·2	30 0·8	30 2·0	,,
July 29–Aug. 7.	30 2·9	30 0·2	30 1·6	,,
Aug. 8–Aug. 17.	30 2·6	30 0·3	30 1·5	,,
Aug. 18–Aug. 27.	30 2·3	29 59·8	30 1·1	,,
Aug. 28–Sept. 6.	30 2·1	29 59·3	30 0·7	,,
Sept. 7–Sept. 16.	30 3·6	29 58·7	30 1·2	,,
Sept. 17–Sept. 26.	30 2·1	29 57·4	29 59·8	,,
Sept. 27–Oct. 6.	30 4·5	29 57·5	30 1·0	,,
Oct. 7–Oct. 16.	30 4·4	29 57·4	30 0·9	,,
Oct. 17–Oct. 26.	29 6·3	29 58·5	30 2·4	,,
Oct. 27–Nov. 5.	30 6·4	29 58·4	30 2·4	,,
Nov. 6–Nov. 15.	30 4·9	29 57·9	30 1·4	,,
Nov. 16–Nov. 25.	30 4·1	29 57·8	30 1·0	,,
Nov. 26–Dec. 5.	30 4·5	29 57·6	30 1·1	,,
Dec. 6–Dec. 15.	30 5·0	29 59·3	30 2·2	,,
Dec. 16–Dec. 25.	30 4·5	29 59·2	30 1·9	,,
1869. Dec. 26–Jan. 4.	30 5·0	29 57·9	30 1·5	,,

APPENDIX II.

The appended results of observations of inclination taken at the Royal Observatory, Cape of Good Hope, have not hitherto been published. So far as we have been able to find the observations were carried out with a dip-circle obtained from Woolwich by Mr. Maclear—afterwards Sir Thomas Maclear. The needles used were marked 1, 2, respectively. In 1854 needle 1 was broken. A new pair—marked 1, 2 new pair—were afterwards used.

It is evident from the results that the needles did not agree amongst themselves.

Inclination.

Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1852. May 4	12.0	1	53° 56′·4	
,, 4	4.0 p.m.	1	54 5·6	
,, 11	10.30 a.m.	1	53 58·0	
,, 11	10.30 a.m.	1	54 7·2	
,, 11	4.0 p.m.	1	54 19·8	54° 6′·0
,, 18	11.50 a.m.	1	54 7·2	
,, 18	3.10 p.m.	1	54 8·1	
,, 26	11.35 a.m.	1	54 12·5	
,, 26	3.22 p.m.	1	54 1·9	
1852. June 2	11.22 a.m.	1	54 2·2	
,, 2	3.42 p.m.	1	54 6·9	
,, 8	11.15 a.m.	1	54 3·2	
,, 8	3.15 p.m.	—	54 7·3	
,, 15	11·2 a.m.	1	54 0·4	54° 5′·4
,, 15	3.42 p.m.	1	54 8·4	
,, 21	2.30 ,,	1	54 2·3	
,, 21	4.10 ,,	1	54 8·7	
,, 22	10.52 a.m.	1	54 6·3	

Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1852. June 22	2.2 p.m.	1	54° 4′·0	
,, 22	3.59 ,,	1	54 4·1	50° 5′·4
,, 30	12.37½ ,,	1	54 4·3	
,, 30	3.58 ,,	1	54 9·2	
1852. July 6	11.2½ a.m.	1	54 3·6	
,, 6	3.49 p.m.	1	54 6·1	
,, 13	11.55 a.m.	1	54 5·4	
,, 13	3.50 p.m.	1	54 3·9	
,, 21	10.7 a.m.	—	54 3·3	54° 1′·9
,, 21	4.7 p.m.	1	53 56·0	
,, 27	11.30 a.m.	1	53 53·4	
,, 27	3.40 p.m.	1	54 3·3	
1852. Aug. 5	9.30 a.m.	1	53 59·0	
,, 5	4.22 p.m.	1	54 2·1	
,, 10	9.40 a.m.	1	54 1·0	
,, 10	3.56 p.m.	1	54 4·3	
,, 17	9.40 a.m.	1	54 2·4	
,, 17	4.10 p.m.	1	54 9·3	54° 2′·8
,, 24	10.52 a.m.	1	54 0·6	
,, 24	3.32 p.m.	1	54 6·8	
,, 31	10.22 a.m.	1	53 38·7	
,, 31	3.35 p.m.	1	54 2·1	
1852. Sept. 1	11.5 a.m.	1	53 59·8	
,, 1	3.30 p.m.	1	54 0·5	
,, 7	9.5 a.m.	1	54 8·8	
,, 7	3.55 p.m.	1	54 10·1	
,, 14	10.7 a.m.	1	54 4·4	
,, 14	3.27 p.m.	1	54 6·3	54° 4′·5
,, 21	10.35 a.m.	1	54 1·7	
,, 21	3.30 p.m.	1	54 4·4	
,, 28	10.42 a.m.	1	54 4·5	
,, 28	3.37 p.m.	1	54 4·3	
1852. Oct. 5	10.37 a.m.	1	54 6·8	
,, 5	3.37 p.m.	1	54 10·4	
,, 12	10.22 a.m.	1	54 5·0	
,, 12	3.37 p.m.	1	54 5·7	
,, 19	9.38 a.m.	1	54 3·2	54° 5′·3
,, 19	3.15 p.m.	1	54 53·9	
,, 26	10.10 a.m.	1	54 8·2	
,, 26	3.17 p.m.	1	54 6·0	
1852. Nov. 2	9.40 a.m.	1	54 7·5	
,, 2	3.32 p.m.	1	54 6·2	
,, 9	10.22 a.m.	1	54 6·6	
,, 9	3.37 p.m.	1	54 5·8	
,, 16	10.15 a.m.	1	54 4·0	
,, 16	3.45 p.m.	1	54 4·8	
,, 23	10.10 a.m.	1	54 4·7	
,, 23	4.12 p.m.	1	54 15·6	54° 4′·1
,, 26	10.32 a.m.	2	54 1·8	
,, 26	3·25 p.m.	2	54 4·8	
,, 30	10.15 a.m.	2	54 2·0	
,, 30	4.10 p.m.	2	53 54·4	
,, 30	10.18 a.m.	1	54 2·1	
,, 30	4.15 p.m.	1	53 57·4	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1852.	Dec. 7	.....	10.12 a.m.	1	54° 2′·3	
	,, 7	.....	4.3 p.m.	1	54 7·3	
	,, 7	.....	10.6 a.m.	2	54 1·6	
	,, 7	.....	4.53 p.m.	2	54 15·4	
	,, 10	.....	10.15 a.m.	1	54 2·7	
	,, 10	.....	4.15 p.m.	1	54 1·9	
	,, 11	.....	9.27 a.m.	1	54 3·0	
	,, 11	.....	3.57 p.m.	1	54 3·7	
	,, 14	.....	9.40 a.m.	1	54 9·8	
	,, 14	.....	3.38 p.m.	1	54 4·5	
	,, 15	.....	10.15 a.m.	1	54 2·1	
	,, 15	.....	3.56 p.m.	1	54 5·6	
	,, 16	.....	10·11 a.m.	1	53 58·0	
	,, 16	.....	3.30 p.m.	1	54 3·7	
	,, 17	.....	9.12 a.m.	1	53 59·3	54° 4′·7
	,, 17	.....	3.30 p.m.	1	54 3·3	(Yearly Mean, 1852,
	,, 21	.....	9.38 a.m.	1	54 2·2	54° 4′·3)
	,, 21	.....	3·21 p.m.	1	54 2·6	
	,, 22	.....	10.25 a.m.	1	54 2·5	
	,, 22	.....	3.25 p.m.	1	54 2·8	
	,, 24	.....	10.27 a.m.	1	54 4·8	
	,, 24	.....	3.20 p.m.	1	54 4·2	
	,, 28	.....	9.35 a.m.	1	54 3·2	
	,, 28	.....	3.35 p.m.	1	54 9·3	
	,, 29	.....	9.50 a.m.	1	54 4·6	
	,, 29	.....	3.37 p.m.	1	54 6·0	
	,, 31	.....	9.16 a.m.	1	54 7·5	
	,, 31	.....	3.25 p.m.	1	54 16·7	
1853.	Jan. 4	.....	10.7 a.m.	1	54 7·9	
	,, 4	.....	3.30 p.m.	1	54 6·2	
	,, 11	.....	3.36 ,,	1	54 11·5	
	,, 12	.....	10.32 a.m.	1	54 5·7	54° 8′·9
	,, 12	.....	3.26 p.m.	1	54 7·7	
	,, 25	.....	10.40 a.m.	1	54 7·1	
	,, 25	.....	3.45 p.m.	1	54 11·4	
1853.	Feb. 1	.....	10.16 a.m.	1	54 5·5	
	,, 1	.....	3.49 p.m.	1	54 12·6	
	,, 4	.....	3.31 ,,	1	54 6·2	
	,, 5	.....	10.34 a.m.	1	54 11·0	
	,, 8	.....	10.55 ,,	1	54 5·0	
	,, 8	.....	3.27 p.m.	1	54 5·9	
	,, 12	.....	10.20 a.m.	1	54 5·6	
	,, 12	.....	3.51 p.m.	1	54 7·0	
	,, 15	.....	7.55 a.m.	1	54 5·2	
	,, 15	.....	3.55 p.m.	1	54 8·7	
	,, 16	.....	10.15 a.m.	1	54 3·2	
	,, 16	.....	4.30 p.m.	1	54 9·9	
	,, 18	.....	10.35 a.m.	1	54 4·6	54° 7′·1
	,, 18	.....	4.0 p.m.	1	54 8·8	
	,, 19	.....	10.20 a.m.	1	54 6·3	
	,, 19	.....	4.9 p.m.	1	54 6·5	
	,, 21	.....	9.38 a.m.	1	54 7·8	
	,, 21	.....	2·40 p.m.	1	54 11·4	
	,, 22	.....	8.0 a.m.	1	54 9·6	
	,, 22	.....	4·17 p.m.	1	54 10·6	
	,, 23	.....	9.30 a.m.	1	54 7·9	
	,, 23	.....	4.54 p.m.	1	54 9·7	
	,, 24	.....	10.16 a.m.	1	54 4·6	
	,, 24	.....	3.10 p.m.	1	54 5·6	

Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1853. Feb. 25	10.15 a.m.	1	54° 5′·6	
,, 25	4.35 p.m.	1	54 4·7	54° 7′·1
,, 26	10·19 a.m.	1	54 3·6	
,, 26	3.41 p.m.	1	54 5·0	
1854. March 1	10.27 a.m.	1	54 7·2	
,, 1	4.0 p.m.	1	54 7·7	
,, 2	10.23 a.m.	1	54 4·7	
,, 2	3.50 p.m.	1	54 4·4	
,, 4	10.52 a.m.	1	54 3·3	
,, 4	3.25 p.m.	1	54 5·7	
,, 5	10.32 a.m.	1	54 2·6	
,, 5	3.42 p.m.	1	54 4·8	
,, 8	10.20 a.m.	1	54 7·7	
,, 8	3.35 p.m.	1	54 10·8	
,, 9	10.25 a.m.	1	54 8·7	
,, 9	3.39 p.m.	1	54 11·7	
,, 11	10.30 a.m.	1	54 7·2	
,, 11	3·45 p.m.	1	54 11·3	
,, 12	9·4 a.m.	1	54 6·1	
,, 12	4·2 p.m.	1	54 9·6	
,, 15	10·25 a.m.	1	54 5·6	54° 6′·4
,, 15	4.0 p.m.	1	54 8·1	
,, 16	10.17 a.m.	1	54 5·3	
,, 16	4.0 p.m.	1	54 6·0	
,, 18	10.21 a.m.	1	54 5·0	
,, 18	4.5 p.m.	1	54 9·5	
,, 19	10.32 a.m.	1	54 5·1	
,, 19	4.1 p.m.	1	54 7·3	
,, 22	10.25 a.m.	1	54 2·6	
,, 22	3.35 p.m.	1	54 4·2	
,, 23	10.35 a.m.	1	54 3·2	
,, 23	4.2 p.m.	1	54 5·2	
,, 26	10.35 a.m.	1	54 3·1	
,, 26	5.7 p.m.	1	54 8·1	
,, 29	10.35 a.m.	1	54 5·3	
,, 29	3.35 p.m.	1	54 7·6	
1853. April 1	10.50 a.m.	1	54 6·7	
,, 1	3.50 p.m.	1	54 6·6	
,, 5	9.32 a.m.	1	54 2·6	
,, 5	3.22 p.m.	1	54 7·6	
,, 8	10.34 a.m.	1	54 5·9	
,, 8	4.5 p.m.	1	54 11·1	
,, 12	11.30 a.m.	1	54 7·3	
,, 12	3.25 p.m.	1	54 9·6	
,, 15	10.16 a.m.	1	54 5·8	54° 6′·5
,, 15	3.27 p.m.	1	54 5·5	
,, 19	10.37 a.m.	1	54 2·5	
,, 19	3.30 p.m.	1	54 7·0	
,, 23	9.7 a.m.	1	54 4·2	
,, 23	3.59 p.m.	1	54 6·4	
,, 26	7.47 a.m.	1	54 4·5	
,, 26	3.37 p.m.	1	54 9·9	
,, 29	10.15 a.m.	1	54 5·4	
,, 29	3.52 p.m.	1	54 7·3	
1853. May 3	10.20 a.m.	1	54 8·7	
,, 3	3.35 p.m.	1	54 14·9	54° 9′·0
,, 6	10.12 a.m.	1	54 8·3	
,, 6	3.43 p.m.	1	54 11·5	

Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1853. May	10	10.20 a.m.	1	54° 9′·0	
,,	10	3.25 p.m.	1	54 7·5	
,,	13	10.10 a.m.	1	54 4·5	
,,	13	3.10 p.m.	1	54 6·5	
,,	17	9·45 a.m.	1	54 6·3	
,,	17	4.4 p.m.	1	54 9·2	
,,	20	9.42 a.m.	1	54 8·6	
,,	20	3.57 p.m.	1	54 9·8	54° 9′·0
,,	24	10.15 a.m.	1	54 8·0	
,,	24	3.40 p.m.	1	54 8·6	
,,	27	10.37 a.m.	1	54 10·0	
,,	27	3.25 p.m.	1	54 11·0	
,,	31	9.10 a.m.	1	54 9·8	
,,	31	4.2 p.m.	1	54 8·4	
1853. June	3	10.30 a.m.	1	54 6·8	
,,	3	3.52 p.m.	1	54 11·2	
,,	7	10.15 a.m.	1	54 9·8	
,,	7	3.23 p.m.	1	54 11·8	
,,	10	10.42 a.m.	1	54 8·1	
,,	10	3.42 p.m.	1	54 9·3	
,,	14	9.47 a.m.	1	54 7·9	
,,	14	3.30 p.m.	1	54 12·4	54° 9′·3
,,	17	9.45 a.m.	—	54 7·7	
,,	17	3.20 p.m.	—	54 8·2	
,,	21	10.10 a.m.	1	54 8·5	
,,	21	3.20 p.m.	1	54 6·8	
,,	24	9.40 a.m.	1	54 8·9	
,,	24	3.52 p.m.	1	54 11·3	
,,	28	10.12 a.m.	1	54 8·7	
,,	28	4.15 p.m.	1	54 10·4	
1853. July	1	10.45 a.m.	1	54 8·3	
,,	1	3.25 p.m.	1	54 9·5	
,,	5	10.17 a.m.	1	54 8·2	
,,	5	3.52 p.m.	1	54 10·4	
,,	8	10.17 a.m.	1	54 6·2	
,,	8	4.25 p.m.	1	54 11·5	
,,	12	10.42 a.m.	—	54 12·0	
,,	12	3.51 p.m.	—	54 14·0	
,,	15	10.25 a.m.	1	54 12·5	
,,	15	4.37 p.m.	1	54 14·2	54° 10′·2
,,	19	10.35 a.m.	1	54 10·4	
,,	19	3.47 p.m.	1	54 10·9	
,,	22	10.42 a.m.	1	54 7·6	
,,	22	4.7 p.m.	1	54 12·5	
,,	26	10.20 a.m.	1	54 7·1	
,,	26	3.52 p.m.	—	54 10·6	
,,	29	10.20 a.m.	1	54 8·6	
,,	29	3.57 p.m.	1	54 9·5	
1853. Aug.	2	10.12 a.m.	1	54 10·3	
,,	2	3.25 p.m.	1	54 9·6	
,,	5	10.25 a.m.	1	54 10·2	
,,	5	3.50 p.m.	1	54 7·3	
,,	9	10.17 a.m.	1	54 10·3	
,,	9	4.10 p.m.	1	54 10·2	54° 9′·2
,,	12	10.39 a.m.	1	54 8·1	
,,	12	4.7 p.m.	1	54 9·8	
,,	16	9.12 a.m.	1	54 5·8	
,,	16	4.51 p.m.	1	54 7·4	

	Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1853.	Aug. 19	10.12 a.m.	1	54° 4′·3	
	,, 19	4.20 p.m.	1	54 11·1	
	,, 23	10.15 a.m.	1	54 9·8	
	,, 23	4.7 p.m.	1	54 10·4	
	,, 26	10.10 a.m.	1	54 8·1	54° 9′·2
	,, 26	4.22 p.m.	1	54 12 0	
	,, 31	10.7 a.m.	1	54 9·3	
	,, 31	4.55 p.m.	1	54 19·7	
1853.	Sept. 2	10.15 a.m.	1	54 13·8	
	,, 2	4.35 p.m.	1	54 21·1	
	,, 6	10.35 a.m.	1	54 7·5	
	,, 6	4·58 p.m.	1	54 17·1	
	,, 9	10.27 a.m.	1	54 7·3	
	,, 9	4.37 p.m.	1	54 10·3	
	,, 13	10.12 a.m.	1	54 8·7	
	,, 20	11.25 ,,	1	54 7·9	
	,, 21	10.12 ,,	1	54 10·1	
	,, 21	4.35 p.m.	1	54 11·8	54° 11′·7
	,, 23	10.37 a.m.	1	54 9·2	
	,, 23	4.40 p.m.	1	54 11·9	
	,, 26	12.15 a.m.	1	54 11·8	
	,, 26	3.52 p.m.	1	54 14·1	
	,, 28	11.10 a.m.	1	54 16·8	
	,, 28	4.20 p.m.	1	54 16·5	
	,, 30	10.15 a.m.	1	54 11·7	
	,, 30	4.11 p.m.	1	54 12·0	
1853.	Oct. 3	7.17 a.m.	1	54 10·2	
	,, 3	4.10 p.m.	1	54 11·5	
	,, 5	9.17 a.m.	1	54 8·9	
	,, 5	4.31 p.m.	1	54 11·8	
	,, 7	9.35 a.m.	1	54 8·8	
	,, 7	4.40 p.m.	1	54 11·5	
	,, 10	4.31 ,,	1	54 10·5	
	,, 11	10.24 a.m.	1	54 9·6	
	,, 11	1.19 p.m.	1	54 9·4	
	,, 11	4·52 ,,	1	54 11·2	
	,, 12	8.57 a.m.	1	54 9·2	
	,, 12	1.18 p.m.	1	54 11·0	
	,, 12	4.41 ,,	1	54 10 0	
	,, 13	10.14 a.m.	1	54 9·0	
	,, 13	1.19 p.m.	1	54 9·6	
	,, 13	4.56 ,,	1	54 10·6	
	,, 14	10.12 a.m.	1	54 8·1	
	,, 14	1.19 p.m.	1	54 8·1	54° 10′·1
	,, 14	4.25 ,,	1	54 11·4	
	,, 15	10.12 a.m.	1	54 7·9	
	,, 15	1.23 p.m.	1	54 8·4	
	,, 15	5.3 ,,	1	54 12·0	
	,, 17	8.57 a.m.	1	54 10·4	
	,, 17	1.32 p.m.	1	54 10·2	
	,, 17	4 51 ,,	1	54 10·1	
	,, 18	10.19 a.m.	1	54 8·5	
	,, 18	1.35 p.m.	1	54 7·3	
	,, 18	5.9 ,,	1	54 10·8	
	,, 19	10.5 a.m.	1	54 8·5	
	,, 19	1.26 p.m.	1	54 8·8	
	,, 19	4.57 ,,	1	54 10·5	
	,, 20	9.40 a.m.	1	54 11·3	
	,, 20	1.26 p.m.	1	54 11·0	
	,, 20	5.15 ,,	1	54 12·8	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1853.	Oct. 21	.....	10.11 a.m.	1	54° 11′·3	
	,, 21	.....	1.32 p.m.	1	54 13·5	
	,, 21	.....	5.6 ,,	1	54 9·0	
	,, 22	.....	6.40 ,,	1	54 10·8	
	,, 22	.....	10.29 a.m.	1	54 9·5	
	,, 22	.....	1.29 p.m.	1	54 9·0	
	,, 22	.....	5.0 ,,	1	54 10·1	
	,, 24	.....	6.43 a.m.	1	54 10·7	
	,, 24	.....		1	54 10·6	
	,, 24	.....	1.21 p.m.	1	54 12·1	
	,, 24	.....	4.53 ,,	1	54 14·0	
	,, 25	.....	6.6 a.m.	1	54 11·1	
	,, 25	.....	10.18 ,,	1	54 11·0	
	,, 25	.....	2.10 p.m.	1	54 13·0	
	,, 25	.....	5.10 ,,	1	54 14·1	
	,, 26	.....	6.19 a.m.	1	54 10·9	
	,, 26	.....	10.4 ,,	1	54 10·5	
	,, 26	.....	1.34 p.m.	1	54 10·5	54° 10′·1
	,, 26	.....	5.0 ,,	1	54 12·4	
	,, 27	.....	6.22 a.m.	1	54 10·2	
	,, 27	.....	10.3 ,,	1	54 8·2	
	,, 27	.....	1.34 p.m.	1	54 9·0	
	,, 27	.....	5.18 ,,	1	54 11·8	
	,, 28	.....	6.8 a.m.	1	54 9·3	
	,, 28	.....	10.31 ,,	1	54 5·8	
	,, 28	.....	1.56 p.m.	1	54 7·5	
	,, 28	.....	4.27 ,,	1	54 10·4	
	,, 29	.....	6.8 a.m.	1	54 8·3	
	,, 29	.....	10.9 ,,	1	54 11·7	
	,, 29	.....	2.11 p.m.	1	54 7·5	
	,, 29	.....	6.10 ,,	1	54 8·8	
	,, 31	.....	6.10 a.m.	1	54 10·6	
	,, 31	.....	10.27 ,,	1	54 9·8	
	,, 31	.....	1.35 p.m.	1	54 8·0	
	,, 31	.....	4.58 ,,	1	54 17·3	
1853.	Nov. 1	.....	6.7 a.m.	1	54 13·6	
	,, 1	.....	10.20 ,,	1	54 12·6	
	,, 1	.....	1.28 p.m.	1	54 13·4	
	,, 1	.....	6.12 ,,	1	54 16·6	
	,, 1	.....	10.30 ,,	1	54 17·4	
	,, 2	.....	6.14 a.m.	1	54 12·9	
	,, 2	.....	10.16 ,,	1	54 10·1	
	,, 2	.....	1.30 p.m.	1	54 8·5	
	,, 2	.....	5.27 ,,	1	54 10·1	
	,, 2	.....	10.10 ,,	1	54 14·8	
	,, 3	.....	6.21 a.m.	1	44 11·6	
	,, 3	.....	10.23 ,,	1	54 11·1	
	,, 3	.....	1.27 p.m.	1	54 7·3	
	,, 3	.....	6.32 ,,	1	54 9·8	54° 10′·7
	,, 3	.....	10.38 ,,	1	54 9·4	
	,, 4	.....	6.26 a.m.	1	54 9·1	
	,, 4	.....	10.34 ,,	1	54 8·5	
	,, 4	.....	1.27 p.m.	1	54 7·4	
	,, 4	.....	6.14 ,,	1	54 9·3	
	,, 4	.....	10.25 ,,	1	54 9·9	
	,, 5	.....	6.9 a.m.	1	54 10·4	
	,, 5	.....	10.10 ,,	1	54 8·4	
	,, 5	.....	1.40 p.m.	1	54 7·5	
	,, 5	.....	6.37 ,,	1	54 10·1	
	,, 8	.....	10.15 a.m.	1	54 4·7	
	,, 8	.....	4.36 p.m.	—	54 11·4	

Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1853. Nov. 9	10·53 a.m.	1	54° 7·2′	
,, 9	5.5 p.m.	1	54 14·5	
,, 10	10.17 a.m.	1	54 11·2	
,, 10	4.59 p.m.	1	54 19·5	
,, 11	10.33 a.m.	1	54 13·1	
,, 11	5.50 p.m.	1	54 12·4	
,, 12	6.7 a.m.	1	54 10·1	
,, 12	10.6 ,,	1	54 8·5	
,, 12	1.29 p.m.	1	54 10·8	
,, 12	5.36 ,,	1	54 11·6	
,, 14	9.38 a.m.	1	54 12·6	54° 10′·7
,, 14	5.11 p.m.	1	54 10·1	
,, 17	9.34 a.m.	1	54 8·5	
,, 17	4.38 p.m.	1	54 10·5	
,, 21	10.20 a.m.	1	54 9·9	
,, 21	4.34 p.m.	1	54 10·5	
,, 24	10.25 a.m.	1	54 9·6	
,, 27	4.57 p.m.	1	54 6·0	
,, 29	10.37 a.m.	1	54 10·1	
,, 29	4.55 p.m.	1	54 10·2	
1853. Dec. 3	10.42 a.m.	1	54 7·7	
,, 3	4.39 p.m.	1	54 10·7	
,, 6	10.16 a.m.	1	54 6·5	
,, 6	5.5 p.m.	1	54 25·1	
,, 9	10.25 a.m.	1	54 8·9	
,, 9	5.23 p.m.	1	54 10·6	
,, 13	10.19 a.m.	1	54 7·9	
,, 13	5.35 p.m.	1	54 16·1	
,, 16	10.41 a.m.	1	54 11·1	54° 11′·4 (Yearly Mean for 1853, 54° 9′·2)
,, 16	4.55 p.m.	1	54 12·2	
,, 21	11.9 a.m.	1	54 6·2	
,, 21	5.6 p.m.	1	54 17·3	
,, 27	10.55 a.m.	1	54 7·8	
,, 27	—	1	54 11·2	
,, 30	7.3 a.m.	1	54 8·7	
,, 30	6.19 p.m.	1	54 11·9	
1854. Jan. 3	10.17 a.m.	1	54 13·5	
,, 3	5.31 p.m.	1	54 15·8	
,, 6	10.37 a.m.	1	54 10·9	
,, 6	4.59 p.m.	1	54 11·9	
,, 10	10.27 a.m.	1	54 11·2	
,, 10	4 50 p.m.	1	54 10·7	
,, 14	10.55 a.m.	1	54 10·9	
,, 14	4.45 p.m.	1	54 12·3	
,, 17	10.17 a.m.	1	54 12·6	
,, 17	5.13 p.m.	1	54 12·3	54° 12′·9
,, 21	10.23 a.m.	1	54 11·2	
,, 21	5.10 p.m.	1	54 15·6	
,, 25	10.6 a.m.	1	54 9·7	
,, 25	5.50 p.m.	2	54 15·3	
,, 27	10.21 a.m.	2	54 16·5	
,, 27	4.31 p.m.	2	54 15·9	
,, 31	10.42 a.m.	2	54 15·3	
,, 31	4.44 p.m.	2	54 11·8	
1854. Feb. 3	10.22 a.m.	2	54 12·4	
,, 3	4.50 p.m.	2	54 20·7	
,, 7	10.13 a.m.	2	54 11·7	54° 5′·6
,, 7	4.56 p.m.	2	54 13·3	
,, 28	10.0 a.m.	2	54 18·5	

Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1854. March 3	10.21 a.m.	2	54° 16′·4	
,, 3	4.41 p.m.	2	54 21·7	
,, 10	9.14 a.m.	2	54 22·7	
,, 10	4.54 p.m.	2	54 23·2	
,, 14	10.36 a.m.	2	54 19·5	
,, 14	4.56 p.m.	2	54 23·7	
,, 22	10.22 a.m.	2	54 18·3	54° 22′·0
,, 22	4.42 p.m.	2	54 20·1	
,, 28	10.29 a.m.	2	54 25·6	
,, 28	4.37 p.m.	—	54 33·4	
,, 31	10.30 a.m.	2	54 23·1	
,, 31	5.21 p.m.	2	54 15·7	
1854. April 4	10.17 a.m.	2	54 15·3	
,, 4	5.24 p.m.	2	54 17·3	
,, 8	10.45 a.m.	2	54 17·1	
,, 8	5.6 p.m.	2	54 20·0	
,, 11	10.39 a.m.	2	54 32·5	
,, 11	4.42 p.m.	2	54 30·3	
,, 18	10.18 a.m.	2	54 18·0	
,, 18	4.42 p.m.	2	54 19·0	54° 21′·3
,, 21	10.43 a.m.	2	54 16·7	
,, 21	4.36 p.m.	2	54 28·9	
,, 25	10.26 a.m.	—	54 19·6	
,, 25	4.39 p.m.	2	54 22·8	
,, 28	10.26 a.m.	2	54 17·3	
,, 28	4.10 p.m.	2	54 23·5	
1854. May 2	9.47 a.m.	2	54 29·3	
,, 2	4.42 p.m.	2	54 32·0	
,, 5	10.26 a.m.	2	54 22·0	
,, 5	4.0 p.m.	2	54 27·2	
,, 9	10.35 a.m.	2	54 20·2	
,, 9	4.40 p.m.	2	54 18·3	
,, 12	10.31 a.m.	2	54 21·5	
,, 12	4.28 p.m.	2	54 26·7	
,, 17	10.25 a.m.	2	54 8·6	
,, 17	4.8 p.m.	2	54 17·4	54° 21′·3
,, 20	10.16 a.m.	2	54 18·8	
,, 20	4.34 p.m.	2	54 21·0	
,, 23	10.16 a.m.	2	54 18·3	
,, 23	5.18 p.m.	2	54 22·4	
,, 26	10.25 a.m.	—	54 19·0	
,, 26	4.32 p.m.	2	54 21·6	
,, 30	10.6 a.m.	—	54 14·4	
,, 30	3.33 p.m.	2	54 24·9	
1854. June 2	10.15 a.m.	2	54 22·6	
,, 2	4.51 p.m.	2	54 16·9	
,, 6	10.30 a.m.	2	54 14·0	
,, 6	5.49 p.m.	2	54 16·2	
,, 9	10.15 a.m.	2	54 22·3	
,, 9	4.23 p.m.	2	54 31·9	
,, 13	10.9 a.m.	2	54 21·6	54° 19′·4
,, 13	4.17 p.m.	2	54 31·8	
,, 17	11.15 a.m.	2	54 31·7	
,, 17	4·41 p.m.	2	54 20·0	
,, 20	9.51 a.m.	2	54 13·9	
,, 20	3.18 p.m.	2	54 13·8	
,, 23	10.27 a.m.	2	54 7·7	

	Date.	Cape Time.	Needle.	Inclination.	Monthly Mean.
1854.	June 23	4.21 p.m.	2	54° 11′·6	
	,, 27	10.37 a.m.	2	54 26·4	50° 19′·4
	,, 27	4.41 p.m.	—	54 17·1	
	,, 30	10.25 a.m.	2	54 9·0	
1854.	Dec. 7	10.51 a.m.	2 (new pair)	54 19·1	
	,, 7	6.12 p.m.	2 ,,	54 25·8	
	,, 8	10.10 a.m.	2 ,,	54 13·1	
	,, 8	5.8 p.m.	2 ,,	54 32·2	
	,, 9	11.42 a.m.	2 ,,	54 29·4	
	,, 9	6.7 p.m.	2 ,,	54 25·2	
	,, 12	10.12 a.m.	2 ,,	54 23·2	
	,, 12	5.0 p.m.	2 ,,	54 30·7	
	,, 15	10.40 a.m.	2 ,,	54 20·1	54° 24′·8 (Yearly Mean for 1854, 54° 19′·6)
	,, 15	4.55 p.m.	2 ,,	54 33·4	
	,, 19	10.16 a.m.	2 ,,	54 23·7	
	,, 19	6.11 p.m.	2 ,,	54 28·1	
	,, 22	10.30 a.m.	2 ,,	54 17·6	
	,, 22	5.25 p.m.	2 ,,	54 30·6	
	,, 26	12.42 a.m.	2 ,,	54 18·1	
	,, 29	6.5 p.m.	2 ,,	54 26·6	
1855.	Jan. 2	10.20 a.m.	2 (new pair)	54 22·0	
	,, 2	5.27 p.m.	2 ,,	54 27·1	
	,, 5	5.45 ,,	1 ,,	54 17·4	
	,, 6	10.20 a.m.	1 ,,	54 4·9	
	,, 6	6.4 p.m.	1 ,,	54 4·7	
	,, 9	11.0 a.m.	1 ,,	53 50·0	
	,, 9	2.27 p.m.	1 ,,	54 14·2	
	,, 12	10.17 a.m.	1 ,,	54 2·2	
	,, 12	5.32 p.m.	1 ,,	54 18·9	
	,, 16	10.15 a.m.	1 ,,	53 52·6	54° 5′·7
	,, 16	5.18 p.m.	1 ,,	54 13·5	
	,, 19	9.32 a.m.	1 ,,	53 54·4	
	,, 19	5.45 p.m.	1 ,,	54 3·8	
	,, 23	11.10 a.m.	1 ,,	53 46·2	
	,, 23	5.22 p.m.	1 ,,	54 1·2	
	,, 27	11.28 a.m.	1 ,,	53 54·7	
	,, 27	11.28 ,,	1 ,,	53 56·9	
	,, 30	11.2 ,,	1 ,,	54 3·1	
1855.	Feb. 2	10.15 a.m.	1 (new pair)	54 2·5	
	,, 6	10.35 ,,	2 ,,	54 21·9	
	,, 6	5.15 p.m.	2 ,,	54 27·9	
	,, 10	9.38 a.m.	2 ,,	54 23·5	
	,, 10	5.42 p.m.	2 ,,	54 27·4	
	,, 13	10.16 a.m.	2 ,,	54 19·2	
	,, 13	5.34 p.m.	2 ,,	54 31·0	
	,, 15	10.22 a.m.	2 ,,	54 22·9	54° 24′·2
	,, 15	5.25 p.m.	2 ,,	54 27·3	
	,, 20	9.0 a.m.	2 ,,	54 28·5	
	,, 20	5.5 p.m.	2 ,,	54 25·7	
	,, 23	9.6 a.m.	2 ,,	54 23·6	
	,, 23	5.0 p.m.	2 ,,	54 27·2	
	,, 27	9.0 a.m.	2 ,,	54 25·2	
	,, 27	5.5 p.m.	2 ,,	54 23·1	
1855.	March 2	9.7 a.m.	2 (new pair)	54 25·3	
	,, 2	4.32 p.m.	2 ,,	54 32·0	54° 27′·0
	,, 6	9.15 a.m.	2 ,,	54 32·9	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1855.	March 6	.....	5.4 p.m.	2 (new pair)	54° 28′·8	
	,, 9	.....	9.38 a.m.	2 ,,	54 23·1	
	,, 9	.....	5.55 p.m.	2 ,,	54 31·5	
	,, 13	.....	10.7 a.m.	2 ,,	54 22·6	
	,, 13	.....	5.20 p.m.	2 ,,	54 27·2	
	,, 16	.....	10.36 a.m.	2 ,,	54 20·3	
	,, 16	.....	5.32 p.m.	2 ,,	54 23·5	
	,, 20	.....	10.5 a.m.	2 ,,	54 26·2	54° 27′·0
	,, 20	.....	5.27 p.m.	2 ,,	54 29·9	
	,, 23	.....	10.10 a.m.	2 ,,	54 26·1	
	,, 24	.....	4.52 p.m.	2 ,,	54 29·7	
	,, 27	.....	9.30 a.m.	2 ,,	54 25·4	
	,, 27	.....	4.41 p.m.	2 ,,	54 26·3	
	,, 30	.....	10.15 a.m.	2 ,,	54 25·8	
	,, 30	.....	4.35 p.m.	2 ,,	54 29·7	
1855.	April 3	.....	12.52 a.m.	2 (new pair)	54 27·4	
	,, 3	.....	4.37 p.m.	2 ,,	54 24·3	
	,, 5	.....	11.52 a.m.	2 ,,	54 23·9	
	,, 5	.....	5.27 p.m.	2 ,,	54 30·7	
	,, 10	.....	10.15 a.m.	2 ,,	54 29·8	
	,, 13	.....	11.15 ,,	2 ,,	54 29·5	
	,, 17	.....	11.5 ,,	2 ,,	54 25·6	54° 26′·8
	,, 20	.....	12.0	2 ,,	54 24·1	
	,, 25	.....	11.40 ,,	2 ,,	54 26·0	
	,, 25	.....	5.0 p.m.	2 ,,	54 24·4	
	,, 27	.....	10.30 a.m.	2 ,,	54 22·7	
	,, 27	.....	4.48 p.m.	2 ,,	54 31·7	
1855.	May 1	.....	11.22 a.m.	2 (new pair)	54 21·5	
	,, 1	.....	5.21 p.m.	2 ,,	54 32·0	
	,, 4	.....	10.25 a.m.	2 ,,	54 31·8	
	,, 8	.....	10.32 ,,	2 ,,	54 24·1	
	,, 8	.....	4.37 p.m.	2 ,,	54 35·2	
	,, 11	.....	10.25 a.m.	2 ,,	54 25·4	
	,, 11	.....	3.45 p.m.	2 ,,	54 23·4	
	,, 15	.....	10·55 a.m.	2 ,,	54 22·9	
	,, 15	.....	4.49 p.m.	2 ,,	54 27·1	54° 26′·7
	,, 18	.....	11.36 a.m.	2 ,,	54 28·3	
	,, 18	.....	4.36 p.m.	2 ,,	54 26·7	
	,, 22	.....	10.55 a.m.	2 ,,	54 24·5	
	,, 22	.....	4.20 p.m.	2 ,,	54 23·9	
	,, 25	.....	11.5 a.m.	2 ,,	54 26·7	
	,, 25	.....	4.15 p.m.	2 ,,	54 31·1	
	,, 29	.....	10.40 a.m.	2 ,,	54 23·2	
	,, 29	.....	4.15 p.m.	2 ,,	54 24·4	
1855.	June 1	.....	11.30 a.m.	2 (new pair)	54 22·0	
	,, 1	.....	4.17 p.m.	2 ,,	54 24·6	
	,, 5	.....	11.27 a.m.	2 ,,	54 19·3	
	,, 5	.....	5.5 p.m.	2 ,,	54 16·8	
	,, 8	.....	11.22 a.m.	2 ,,	54 25·5	
	,, 8	.....	4.30 p.m.	2 ,,	54 34·5	
	,, 12	.....	10.55 a.m.	2 ,,	54 23·7	54° 22′·1
	,, 12	.....	4.22 p.m.	2 ,,	54 21·1	
	,, 15	.....	10.35 a.m.	2 ,,	54 21·2	
	,, 15	.....	5.7 p.m.	2 ,,	54 22·4	
	,, 19	.....	11.25 a.m.	2 ,,	54 19·8	
	,, 19	.....	4.7 p.m.	2 ,,	54 26·6	
	,, 22	.....	10.15 a.m.	2 ,,	54 15·3	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1855.	June 22	.....	3.55 p.m.	2 (new pair)	54° 15′·7	
	,, 26	.....	11.25 a.m.	2 ,,	54 24·2	
	,, 26	.....	4.25 p.m.	2 ,,	54 24·3	54° 22′·1
	,, 29	.....	10.37 a.m.	2 ,,	54 18·5	
	,, 29	.....	4.55 p.m.	2 ,,	54 23·1	
1855.	July 3	.....	11.22 a.m.	2 (new pair)	54 23·7	
	,, 3	.....	4.7 p.m.	2 ,,	54 26·5	
	,, 6	.....	10.12 a.m.	2 ,,	54 26·0	
	,, 6	.....	5.20 p.m.	2 ,,	54 27·9	
	,, 10	.....	10.25 a.m.	2 ,,	54 26·3	
	,, 10	.....	4.22 p.m.	2 ,,	54 25·9	
	,, 13	.....	11.25 a.m.	2 ,,	54 28·7	
	,, 13	.....	4.55 p.m.	2 ,,	54 18·5	
	,, 17	.....	10.50 a.m.	2 ,,	54 23·2	54° 24′·5
	,, 17	.....	3.55 p.m.	2 ,,	54 24·4	
	,, 20	.....	10.25 a.m.	2 ,,	54 18·0	
	,, 20	.....	4.16 p.m.	2 ,,	54 23·7	
	,, 24	.....	10.27 a.m.	2 ,,	54 23·5	
	,, 24	.....	4.32 p.m.	2 ,,	54 22·6	
	,, 27	.....	10.22 a.m.	2 ,,	54 21·4	
	,, 27	.....	4.25 p.m.	2 ,,	54 30·3	
	,, 31	.....	10.37 a.m.	2 ,,	54 26·1	
	,, 31	.....	4.47 p.m.	2 ,,	54 24·8	
1855.	Aug. 3	.....	10.20 a.m.	2 (new pair)	54 23·9	
	,, 3	.....	4.42 p.m.	2 ,,	54 31·7	
	,, 7	.....	10.22 a.m.	2 ,,	54 20·0	
	,, 7	.....	4.22 p.m.	2 ,,	54 25·2	
	,, 10	.....	10.17 a.m.	2 ,,	54 18·8	
	,, 14	.....	9.12 ,,	2 ,,	54 22·3	
	,, 14	.....	4.37 p.m.	2 ,,	54 19·9	
	,, 17	.....	9.5 a.m.	2 ,,	54 19·2	54° 23′·6
	,, 17	.....	4.25 p.m.	2 ,,	54 27·9	
	,, 21	.....	11.49 a.m.	2 ,,	54 19·3	
	,, 21	.....	4.40 p.m.	2 ,,	54 25·2	
	,, 24	.....	9.10 a.m.	2 ,,	54 23·9	
	,, 24	.....	5.7 p.m.	2 ,,	54 24·7	
	,, 29	.....	9.7 a.m.	2 ,,	54 18·7	
	,, 29	.....	4.37 p.m.	2 ,,	54 27·2	
1855.	Sept. 1	.....	11.7 a.m.	2 (new pair)	54 18·4	
	,, 1	.....	4.52 p.m.	2 ,,	54 23·8	
	,, 4	.....	11.52 a.m.	2 ,,	54 20·1	
	,, 4	.....	4.57 p.m.	2 ,,	54 25·4	
	,, 6	.....	10.22 a.m.	2 ,,	54 17·1	
	,, 6	.....	4.22 p.m.	2 ,,	54 30·7	
	,, 8	.....	10.22 a.m.	2 ,,	54 23·3	
	,, 8	.....	4·47 p.m.	2 ,,	54 29·8	
	,, 11	.....	9.40 a.m.	2 ,,	54 19·4	
	,, 11	.....	4.54 p.m.	2 ,,	54 35·8	
	,, 13	.....	10.32 a.m.	2 ,,	54 24·6	54° 23′·6
	,, 13	.....	4.52 p.m.	2 ,,	54 26·6	
	,, 15	.....	9.47 a.m.	2 ,,	54 27·4	
	,, 15	.....	4.59 p.m.	2 ,,	54 26·4	
	,, 18	.....	9.35 a.m.	2 ,,	54 21·9	
	,, 18	.....	4.57 p.m.	2 ,,	54 26·1	
	,, 20	.....	10.15 a.m.	2 ,,	54 23·3	
	,, 20	.....	5.8 p.m.	2 ,,	54 22·9	
	,, 22	.....	10.2 a.m.	2 ,,	54 17·5	
	,, 22	.....	4.56 p.m.	2 ,,	54 24·6	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1855.	Sept. 25	.....	9.2 a.m.	2 (new pair)	54° 22′·8	
	,, 25	.....	4.47 p.m.	2 ,,	54 23·9	
	,, 27	.....	9.2 a.m.	2 ,,	54 19·6	
	,, 27	.....	4.52 p.m.	2 ,,	54 19·0	54° 23′·6
	,, 29	.....	9.37 a.m.	2 ,,	54 21·4	
	,, 29	.....	4.52 p.m.	2 ,,	54 22·5	
1855.	Oct. 2	.....	9.11 a.m.	2 (new pair)	54 19·9	
	,, 2	.....	5.9 p.m.	2 ,,	54 23·2	
	,, 4	.....	9.32 a.m.	2 ,,	54 21·0	
	,, 4	.....	5.3 p.m.	2 ,,	54 25·0	
	,, 6	.....	9.26 a.m.	2 ,,	54 25·1	
	,, 6	.....	5.5 p.m.	2 ,,	54 25·2	
	,, 9	.....	10.5 a.m.	2 ,,	54 19·5	
	,, 9	.....	5.25 p.m.	2 ,,	54 19·1	
	,, 11	.....	10.15 a.m.	2 ,,	54 22·6	
	,, 11	.....	4.55 p.m.	2 ,,	54 22·7	
	,, 13	.....	10.5 a.m.	2 ,,	54 23·1	
	,, 13	.....	5.2 p.m.	2 ,,	54 21·4	
	,, 16	.....	9.2 a.m.	2 ,,	54 22·6	54° 22′·1
	,, 16	.....	5.22 p.m.	2 ,,	54 26·5	
	,, 18	.....	10.12 a.m.	2 ,,	54 18·9	
	,, 18	.....	5.0 p.m.	2 ,,	54 21·3	
	,, 20	.....	8.35 a.m.	2 ,,	54 18·1	
	,, 20	.....	—	2 ,,	54 19·5	
	,, 23	.....	9.20 ,,	2 ,,	54 25·1	
	,, 23	.....	5.12 p.m.	2 ,,	54 22·9	
	,, 25	.....	9.41 a.m.	2 ,,	54 19·9	
	,, 25	.....	5.5 p.m.	2 ,,	54 20·2	
	,, 27	.....	9.36 a.m.	2 ,,	54 23·0	
	,, 27	.....	5.8 p.m.	2 ,,	54 24·2	
1855.	Dec. 11	.....	9.37 a.m.	2 (new pair)	54 19·7	
	,, 11	.....	5.12 p.m.	2 ,,	54 23·8	
	,, 14	.....	9.12 a.m.	2 ,,	54 21·9	
	,, 14	.....	6.5 p.m.	2 ,,	54 25·7	
	,, 18	.....	9.25 a.m.	2 ,,	54 22·2	
	,, 18	.....	5.20 p.m.	2 ,,	54 27·5	
	,, 21	.....	9.57 a.m.	2 ,,	54 23·7	54° 23′·3 (Yearly Mean, 1855, 54° 24′·5)
	,, 21	.....	4.37 p.m.	2 ,,	54 27·1	
	,, 26	.....	8.52 a.m.	2 ,,	54 18·5	
	,, 26	.....	5.20 p.m.	2 ,,	54 24·6	
	,, 28	.....	8.50 a.m.	2 ,,	54 20·2	
	,, 28	.....	4.35 p.m.	2 ,,	54 25·0	
1856.	Jan. 1	.....	9.32 a.m.	2 (new pair)	54 20·3	
	,, 1	.....	4.53 p.m.	2 ,,	54 27·2	
	,, 4	.....	10.25 a.m.	2 ,,	54 18·4	
	,, 4	.....	5.25 p.m.	2 ,,	54 24·4	
	,, 8	.....	8.37 a.m.	2 ,,	54 19·9	
	,, 8	.....	5.20 p.m.	2 ,,	54 25·0	
	,, 11	.....	9.5 a.m.	2 ,,	54 21·8	
	,, 11	.....	5.9 p.m.	2 ,,	54 23·0	
	,, 15	.....	9.40 a.m.	2 ,,	54 22·5	
	,, 15	.....	5.42 p.m.	2 ,,	54 25·9	54° 23′·2
	,, 18	.....	9.8 a.m.	2 ,,	54 20·0	
	,, 18	.....	5.20 p.m.	2 ,,	54 24·8	
	,, 22	.....	9.30 a.m.	2 ,,	54 24·6	
	,, 22	.....	5.30 p.m.	2 ,,	54 26·8	
	,, 25	.....	9.30 a.m.	2 ,,	54 25·1	
	,, 25	.....	5·8 p.m.	2 ,,	54 25·5	
	,, 29	.....	9.15 a.m.	2 ,,	54 25·6	
	,, 29	.....	5.6 p.m.	2 ,,	54 25·6	

	Date.		Cape Time.	Needle.		Inclination.	Monthly Mean.
1856.	Feb.	1	8.52 a.m.	2	(new pair)	54° 23′·1	
	,,	1	5.5 p.m.	2	,,	54 27·0	
	,,	5	9.5 a.m.	2	,,	54 24·1	
	,,	5	5.2 p.m.	2	,,	54 27·2	
	,,	8	9.12 a.m.	2	,,	54 25·8	
	,,	8	5.9 p.m.	2	,,	54 28·7	
	,,	12	9.30 a.m.	2	,,	54 25·8	
	,,	12	5.15 p.m.	2	,,	54 27·3	
	,,	15	10.5 a.m.	2	,,	54 21·9	
	,,	15	5.25 p.m.	2	,,	54 24·2	54° 26′·2
	,,	19	9.22 a.m.	2	,,	54 23·0	
	,,	19	5.0 p.m.	2	,,	54 25·3	
	,,	22	9.5 a.m.	2	,,	54 27·4	
	,,	22	5.9 p.m.	2	,,	54 30·0	
	,,	26	9.20 a.m.	2	,,	54 27·0	
	,,	26	4.59 p.m.	2	,,	54 28·3	
	,,	29	9.9 a.m.	2	,,	54 26·5	
	,,	29	5.22 p.m.	2	,,	54 28·9	
1856.	March	4	9.12 a.m.	2	(new pair)	54 24·0	
	,,	4	4.55 p.m.	2	,,	54 21·0	
	,,	7	9.5 a.m.	2	,,	54 24·1	
	,,	7	5.15 p.m.	2	,,	54 19·7	
	,,	11	10.1 a.m.	2	,,	54 23·2	
	,,	11	5.1 p.m.	2	,,	54 26·6	
	,,	14	10.2 a.m.	2	,,	54 22·0	
	,,	14	4.52 p.m.	2	,,	54 22·5	
	,,	18	10.5 a.m.	2	,,	54 21·5	54° 23′·5
	,,	18	5.25 p.m.	2	,,	54 26·7	
	,,	22	10.7 a.m.	2	,,	54 22·0	
	,,	22	5.6 p.m.	2	,,	54 21·8	
	,,	25	10.5 a.m.	2	,,	54 23·6	
	,,	25	5.5 p.m.	2	,,	54 23·0	
	,,	28	9.0 a.m.	2	,,	54 26·8	
	,,	28	5.1 p.m.	2	,,	54 27·6	
1856.	April	1	9.2 a.m.	2	(new pair)	54 24·5	
	,,	1	5.5 p.m.	2	,,	54 28·2	
	,,	5	9.5 a.m.	2	,,	54 25·2	
	,,	5	4.45 p.m.	2	,,	54 26·8	
	,,	8	9.17 a.m.	2	,,	54 23·3	
	,,	8	5.0 p.m.	2	,,	54 25·9	
	,,	11	9.27 a.m.	2	,,	54 25·1	
	,,	11	4.55 p.m.	2	,,	54 29·6	
	,,	15	8.59 a.m.	2	,,	54 24·2	
	,,	15	5.5 p.m.	2	,,	54 30·4	54° 27′·3
	,,	18	8.55 a.m.	2	,,	54 28·3	
	,,	18	4.40 p.m.	2	,,	54 26·1	
	,,	23	9.2 a.m.	2	,,	54 31·8	
	,,	23	5.2 p.m.	2	,,	54 29·0	
	,,	26	9.15 a.m.	2	,,	54 28·8	
	,,	26	4.55 p.m.	2	,,	54 25·9	
	,,	30	8.56 a.m.	2	,,	54 29·8	
	,,	30	4.55 p.m.	2	,,	54 28·5	
1856.	May	2	9.7 a.m.	2	(new pair)	54 25·1	
	,,	2	5.2 p.m.	2	,,	54 27·5	
	,,	7	8.57 a.m.	2	,,	54 18·5	
	,,	7	5.11 p.m.	2	,,	54 23·2	54° 24′·7
	,,	10	10.7 a.m.	2	,,	54 25·3	
	,,	10	4.47 p.m.	2	,,	54 26·9	

	Date.		Cape Time.	Needle.		Inclination.	Monthly Mean.
1856.	May 13	.....	10.2 a.m.	2	(new pair)	54° 25′·0	
	,, 13	.....	4.47 p.m.	2	,,	54 25·3	
	,, 16	.....	10.7 a.m.	2	,,	54 23·0	
	,, 16	.....	4.40 p.m.	2	,,	54 28·7	
	,, 21	.....	10.7 a.m.	2	,,	54 22·4	
	,, 21	.....	5.2 p.m.	2	,,	54 26·5	
	,, 24	.....	10.7 a.m.	2	,,	54 21·8	
	,, 24	.....	4.42 p.m.	2	,,	54 21·6	54° 24′·7
	,, 27	.....	10.10 a.m.	2	,,	54 26·5	
	,, 27	.....	4.30 p.m.	2	,,	54 29·1	
	,, 27	.....	10.20 a.m.	2	,,	54 26·5	
	,, 27	.....	4.30 p.m.	2	,,	54 29·1	
	,, 30	.....	10.35 a.m.	2	,,	54 20·9	
	,, 30	.....	4.25 p.m.	2	,,	54 26·6	
1856.	June 3	.....	10.20 a.m.	2	(new pair)	54 20·7	
	,, 6	.....	10.17 ,,	2	,,	54 24·9	
	,, 6	.....	4.40 p.m.	2	,,	54 28·0	
	,, 7	.....	4.40 ,,	2	,,	54 20·6	
	,, 10	.....	10.25 a.m.	2	,,	54 22·3	
	,, 10	.....	4.37 p.m.	2	,,	54 22·4	
	,, 13	.....	10.25 a.m.	2	,,	54 23·4	
	,, 13	.....	4.30 p.m.	2	,,	54 28·6	
	,, 17	.....	10.30 a.m.	2	,,	54 20·8	54° 24′·0
	,, 17	.....	4.45 p.m.	2	,,	54 27·6	
	,, 20	.....	10.25 a.m.	2	,,	54 19·3	
	,, 20	.....	4.15 p.m.	2	,,	54 31·8	
	,, 24	.....	10.20 a.m.	2	,,	54 24·0	
	,, 24	.....	4.5 p.m.	2	,,	54 21·6	
	,, 27	.....	10.57 a.m.	2	,,	54 21·2	
	,, 27	.....	4.12 p.m.	2	,,	54 26·6	
1856.	July 1	.....	11.0 a.m.	2	(new pair)	54 22·2	
	,, 1	.....	4.40 p.m.	2	,,	54 27·1	
	,, 5	.....	10.42 a.m.	2	,,	54 27·5	
	,, 5	.....	4.10 p.m.	2	,,	54 23·1	
	,, 9	.....	11.40 a.m.	2	,,	54 15·2	
	,, 9	.....	4.25 p.m.	2	,,	54 18·2	
	,, 11	.....	11.0 a.m.	2	,,	54 17·4	
	,, 14	.....	4.12 p.m.	2	,,	54 26·4	54° 21′·9
	,, 16	.....	11.15 a.m.	2	,,	54 25·8	
	,, 16	.....	4.7 p.m.	2	,,	54 24·8	
	,, 25	.....	10.22 a.m.	2	,,	54 22·4	
	,, 25	.....	4.5 p.m.	2	,,	54 16·9	
	,, 30	.....	10.25 a.m.	2	,,	54 20·0	
	,, 30	.....	4.7 p.m.	2	,,	54 19·6	
1856.	Aug. 1	.....	11.30 a.m.	2	(new pair)	54 23·4	
	,, 1	.....	5.2 p.m.	2	,,	54 24·4	
	,, 5	.....	12.37 a.m.	2	,,	54 26·2	
	,, 6	.....	4.15 p.m.	2	,,	54 25·7	
	,, 8	.....	10.37 a.m.	2	,,	54 22·8	
	,, 8	.....	4.22 p.m.	2	,,	54 23·2	
	,, 12	.....	11.2 a.m.	2	,,	54 21·1	
	,, 12	.....	4.40 p.m.	2	,,	54 23.2	54° 22′·9
	,, 15	.....	11.2 a.m.	2	,,	54 22·1	
	,, 15	.....	4.5 p.m.	2	,,	54 24·0	
	,, 22	.....	10.7 a.m.	2	,,	54 14·5	
	,, 22	.....	4.2 p.m.	2	,,	54 22·7	
	,, 26	.....	10.7 a.m.	2	,,	54 25·1	
	,, 26	.....	3.57 p.m.	2	,,	54 24·7	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1856.	Sept. 5	.....	10.37 a.m.	2 (new pair)	54° 26′·3	
	,, 5	.....	4.50 p.m.	2 ,,	54 25·6	
	,, 12	.....	10.55 a.m.	2 ,,	54 14·6	
	,, 12	.....	4.42 p.m.	2 ,,	54 16·3	
	,, 17	.....	11.25 a.m.	2 ,,	54 25·0	
	,, 17	.....	4.35 p.m.	2 ,,	54 23·8	
	,, 23	.....	10.22 a.m.	2 ,,	54 21·0	54° 22′·0
	,, 23	.....	4.25 p.m.	2 ,,	54 20·0	
	,, 27	.....	9.6 a.m.	2 ,,	54 18·5	
	,, 27	.....	4.17 p.m.	2 ,,	54 26·2	
	,, 29	.....	11.19 a.m.	2 ,,	54 22·7	
	,, 30	.....	4.5 p.m.	2 ,,	54 23·8	
1856.	Oct. 3	.....	11.25 a.m.	2 (new pair)	54 27·2	
	,, 3	.....	4.5 p.m.	2 ,,	54 21·0	
	,, 7	.....	11.25 a.m.	2 ,,	54 21·6	
	,, 7	.....	4·40 p.m.	2 ,,	54 22·1	
	,, 10	.....	10·55 a.m.	2 ,,	54 24·2	
	,, 10	.....	4.2 p.m.	2 ,,	54 22·6	
	,, 14	.....	11.2 a.m.	2 ,,	54 22·8	
	,, 14	.....	4.50 p.m.	2 ,,	54 20·9	
	,, 18	.....	11.0 a.m.	2 ,,	54 21·0	
	,, 18	.....	4.27 p.m.	2 ,,	54 22·8	54° 23′·8
	,, 21	.....	10.12 a.m.	2 ,,	54 22·4	
	,, 21	.....	4.0 p.m.	2 ,,	54 29·8	
	,, 25	.....	10.8 a.m.	2 ,,	54 26·7	
	,, 25	.....	4.42 p.m.	2 ,,	54 25·9	
	,, 28	.....	10.52 a.m.	2 ,,	54 25·6	
	,, 28	.....	3.52 p.m.	2 ,,	54 26·7	
	,, 31	.....	10.8 a.m.	2 ,,	54 24·0	
	,, 31	.....	4.55 p.m.	2 ,,	54 20·9	
1856.	Nov. 4	.....	10.8 a.m.	2 (new pair)	54 23·7	
	,, 4	.....	4.23 p.m.	2 ,,	54 22·2	
	,, 7	.....	10.12 a.m.	2 ,,	54 21·7	
	,, 7	.....	5.5 p.m.	2 ,,	54 24·1	
	,, 11	.....	10.58 a.m.	2 ,,	54 22·1	
	,, 11	.....	4.2 p.m.	2 ,,	54 27·5	
	,, 14	.....	10.8 a.m.	2 ,,	54 23·1	
	,, 14	.....	5.22 p.m.	2 ,,	54 19·8	
	,, 18	.....	10.5 a.m.	2 ,,	54 23·7	54° 23′·6
	,, 18	.....	4.55 p.m.	2 ,,	54 26·7	
	,, 21	.....	10.12 a.m.	2 ,,	54 26·1	
	,, 22	.....	4.2 p.m.	2 ,,	54 23·0	
	,, 25	.....	10.5 a.m.	2 ,,	54 21·1	
	,, 25	.....	4.37 p.m.	2 ,,	54 23·2	
	,, 29	.....	10.12 a.m.	2 ,,	54 24·0	
	,, 29	.....	4.0 p.m.	2 ,,	54 25·0	
1856.	Dec. 2	.....	10.8 a.m.	2 (new pair)	54 20·1	
	,, 2	.....	4.30 p.m.	2 ,,	54 18·0	
	,, 5	.....	10.8 a.m.	2 ,,	54 18·9	
	,, 5	.....	4.8 p.m.	2 ,,	54 25·5	
	,, 9	.....	10.8 a.m.	2 ,,	54 22·2	
	,, 9	.....	4.32 p.m.	2 ,,	54 26·7	
	,, 12	.....	10.20 a.m.	2 ,,	54 25·5	54° 23′·7 (Mean for year 1856, 54° 23′·9)
	,, 12	.....	4.30 p.m.	2 ,,	54 30·4	
	,, 15	.....	9·23 a.m.	2 ,,	54 23·6	
	,, 15	.....	4.35 p.m.	2 ,,	54 24·3	
	,, 24	.....	10.12 a.m.	2 ,,	54 24·2	
	,, 30	.....	10.10 p.m.	2 ,,	54 23·5	

	Date.		Cape Time.	Needle.	Inclination.	Monthly Mean.
1857.	Jan.	9	10.10 a.m.	2 (new pair)	54° 25′·7	
	,,	13	10.8 ,,	2 ,,	54 19·9	
	,,	16	10.8 ,,	2 ,,	54 25·5	54° 23′·0
	,,	20	10.8 ,,	2 ,,	54 21·9	
	,,	31	10.8 ,,	2 ,,	54 22·0	
1857.	Feb.	3	10.28 ,,	2 (new pair)	54 18·9	54° 19′·4
	,,	6	10.12 ,,	2 ,,	54 19·9	
1858.	Mar.	16	10.30 ,,	2 (new pair)	54 29·3	
1871.	Aug.	16	about noon	2	55 46·5	
	,,	30	about noon	1	55 44·2	
1871.	Sept.	28	noon	1	55 34·9	

APPENDIX III.

The following results are the monthly means of the horizontal intensity obtained by experiment at the Royal Observatory, Cape of Good Hope, at the dates given. The total intensity is calculated from the observed values of dip and of horizontal intensity.

Cape Town.

Date.		H. c.g.s. units.	Total Intensity. c.g.s. units.	
1843.	July	·2084	·3489	
	Oct.	·2093	·3506	Wilmot & Clerk.
1844.	Jan.	·2070	·3467	
	Apr.	·2067	·3471	
	July	·2069	·3473	
1845.	Feb.	·2085	·3500	
	Mar.	·2083	·3496	
	Apr.	·2077	·3488	
	May	·2084	·3496	
	June	·2082	·3493	
1846.	Apr.	·2080		
	Dec.	·2080		
1847.	Jan.	·2080		
	Feb.	·2078		
	Mar.	·2077		
	Apr.	·2076		
	May	·2077		
	June	·2079		
	July	·2078		Smalley.
	Aug.	·2078		
	Sept.	·2076		
	Oct.	·2074		
	Nov.	·2073		
	Dec.	·2073		
1848.	Jan.	·2073		
	Feb.	·2071		
	Mar.	·2072		

Date.		H. c.g.s. units.	Total Intensity. c.g.s. units.	
1853.	June	·2056	·3510	
	July	·2056	·3513	
	Aug.	·2057	·3512	
	Sept.	·2054	·3513	
	Oct.	·2055	·3511	
	Nov.	·2055	·3511	
	Dec.	·2055	·3511	
1854.	Jan.	·2054	·3513	
	Feb.	·2048	·3507	
	Mar.	·2050	·3519	
	Apr.	·2050	·3519	
	May	·2050	·3517	
	June	·2050	·3515	
	July	·2049		
	Aug.	·2050		
	Sept.	·2049		
	Oct.	·2048		
	Nov.	·2049		
	Dec.	·2050	·3523	
1855.	Jan.	·2050		
	Feb.	·2048	·3519	
	Mar.	·2047	·3521	
	Apr.	·2049	·3523	
	May	·2047	·3521	
	June	·2047	·3514	
	July	·2047	·3518	
	Aug.	·2048	·3518	Maclear.

Date.		H. c.g.s. units.	Total Intensity. c.g.s. units.	
1848.	Apr.	·2072		
	May	·2073		
	June	·2074		
	July	·2072		
	Aug.	·2074		
	Sept.	·2073	Smalley.	
	Oct.	·2070		
	Nov.	·2068		
	Dec.	·2069		
1850.	Jan.	·2066		
1852.	Sept.	·2058	·3507	
	Nov.	·2060	·3503	Maclear.
	Dec.	·2058	·3509	
1853.	Jan.	·2060	·3512	
	Feb.	·2059	·3513	
	Mar.	·2058	·3510	
	Apr.	·2056	·3508	
	May	·2056	·3510	

Date.		H. c.g.s. units.	Total Intensity. c.g.s. units.	
1855.	Sept.	·2047	·3516	
	Oct.	·2046	·3512	
	Dec.	·2047	·3516	
1856.	Jan.	·2047	·3515	
	Feb.	·2046	·3518	
	Mar.	·2045	·3512	
	Apr.	·2044	·3517	
	May	·2045	·3514	
	June	·2044	·3512	
	July	·2043	·3507	Maclear.
	Aug.	·2043	·3507	
	Sept.	·2042	·3505	
	Oct.	·2041	·3505	
	Nov.	·2042	·3507	
	Dec.	·2042	·3508	
1857.	Jan.	·2042	·3506	
	Feb.	·2042	3502	
	Oct.	·2039	·3513	

Date.		H.	T.	
1873–9		·1989 c.g.s. units.	·3551 c.g.s. units.	Challenger
1890–1		·1916 ,, ,,	·3542 ,, ,,	Pensacola
1895–05		·1900 ,, ,,	·3572 ,, ,,	Finlay
1897–8		·18835 ,, ,,	·3566 ,, ,,	Finlay
1901–0		·1851 ,, ,,	·3559 ,, ,,	B. & M.
1857	Oct.	*·2060* ,, ,,	*·3557* ,, ,,	(Novara)